John Howland

John Howland
His Book 1768

John Howland His hand & pen

John Howland
His Jornal Book
1768

Dartmouth New England
the 20th 7ber 1768

John Howland

A Jornal of this our Intended Voyage By the
Lords Assistence from Dartmouth to the Straights
of bellile for the Sloop Called the Reliance In
the year   1768

5   the 4th 14th 1768
    this Day at 8 in the morning Caim to Sail In aquatinett
    harbour the Wind at NNW blows fresh Went into Tampolin Cove
    So fands this Day

6   the 4th 15th 1768 this Day the Wind at Eward the first Darts
    Wind at W Ward blows fresh the Latter parts the Wind to Eward
    Cloudy hals to Sward So fands the Day

7   the 4th 16th 1768 this Day first Darts the Wind small the Latter
    parts the Wind at NNW at 5 In morning Caim to Sail the Wind
    Starts to W Ward at 10 Caim to anchor at Nantuckets bad Went
    on Shore got sum Rigen   So fands the Day

1   the 4th 17th 1768 at 1 Caim of Caim to Sail the Wind at W
    blows fresh at 3 Was abreast with the Round Skole Steard SNE the
    Wind Dies at 5 almost Calm Learge Sea small breafe to
    N Ward at 8 Calm the Latter Darts small breafe to the NNE Cloudy
    the Wind Starts to the N Eward Clears had a good obs Latt in 41=40 N
    Dist 70 m So fands Day

2   the 4th 18th 1768 the first Darts the Wind to WNW Steard SNE
    the Wind breafes hals to N Ward at 8 blows fresh the Latter
    Darts the Wind at NW blows fresh Cloudy bad Sea Saw sundry
    Sail Standing to E Ward Clears had a good obs Latt in
    42=46 Dist 132 m So fands the Day

3   the 4th 19th 1768 the first Darts Clear sreen air
    Steard NE by E at half after 2 Saw the Land baring North
    10 Lagues Dist at 5 Was in with the Land Stood a Long
    Shore Steard E by N the Latter Darts the Wind at N Ward
    small breafe Clear & plesent at 9 Calm Latt in 43=52 N
    So fands the Day

4   the 4th 20th 1768 the first Darts small breafe Wind to
    N Ward at 3 Saw halifax Light house the Wind at NNE
    blows fresh Stood to Eward by the Wind at 8 the Wind
    Dies Laid in E by N the Latter Darts the weather moderate
    the 21th the Wind small Went into owls head the 22th
    the Wind to W Ward Went into Liskeuins harbour the 23th
    the Wind at the E Ward the 24th the the Wind at WSW
    fogey the 25th the Wind at WSW fog Clears
    the 26th the Wind at W Ward Went out got into
    Canso the Wind to N Ward blows fresh the 27th
    the Wind at S Ward rains the 28th Wind Dies went into bay
    Guts found Ice plenty found there was No Vessells
    through the gut So fands the Day

the 4th & 5th 1768 the first part the Ice & Bergs 6 Days
plenty the Wind small we had fresh very thick weather pretty Ice
breese Wind to S Ward Caim out Went into Coke
Island harbour So Ends the Day

the 5th & th the Wind to the S E Latter part the
Wind at N E So Ends the Day

the 6th & th the first part the Wind hals to the
S Ward Caims the Latter part the Wind at S S E
Caim out the Wind bloes fresh took two Reefs for M.
bloes hard So Ends the Day

the 7th & th 1768 the first part the Wind bloes hard Look
likely to Shift to N Ward Went into a poore harbour
about 11 Leagues from Cole Islands there was a Large
Sea hove into this harbour Capt Silvenus Coffin
Caim fowl of Us Did Us Considerable Damage Stove
his bote on his gnowled and broke his boom got Clear
of him by paying out the Whole of our Sheat
Cable he Rid fowl of our Cable all Night before
he would Cum fowl of Us every Moment he
galled our Cable Very much acrost his anchor
the Latter part the Wind Dies allmost Calm
So Ends the Day

the 8th & th 1768 the first part small breaze
to the W Ward Caim out the Wind hals to N Ward
& S Ward the Weather good Latter part good Weather
the Wind Variable Latd In 46=55 N the North Cape bore
East by Compass 6 Leagues Dist So Ends the Day

the 9th & th 1768 the first almost Calm Latter part
breaze to W S W Saw Sea Cows & finbacks plenty
Latd In by obs 47=34 N So Ends the Day

the 10th & th the first part the Wind small & Varyebl
some fog the Latter part good Weather the Weather
flattering the Wind Variable Latd In 48=10 N So Ends
the Day

the 11th & th 1768 the first part the Wind small & Variabl
Latter part some fog Latd In 48=45 N So Ends the Day

the 12th & th Small breaze to S Ward fog So Ends the Day

the 13th & th Saw the North Shore Caim Up with it
the Ice was so thick we could Not make a harbour
Stood for Newfoundland So Ends the Day

the 14th & th 1768 the first part the Wind at S S W
Ice Very plenty Laid of & on the Latter part Dirty
at the Days braking we saw Newfoundland Stood In
for its had Ice Very plenty the Wind bloes fresh
Went into Stongwater harbour found the Ice Not
brock Up the harbour being full of Ice So Ends the Day

the 15th 5th m° 1768 the first part the wind bloes fr
" at sward latter part the wind small so ends the day
the 16th 5th m° 1768 the first part good weather latter part
" the wind at sward bloes fresh dusty weather so ends the day
the 17th 5th m° 1768 the first part driskey the wind to
N ward ————————————————————

the 27th 5th m° 1768 we got in to braddore the fee very
thick some whales run the wind to Eward the weather
blustering the wind continues to Eward till the 25th
6th m° and the fee till the first of the 7th m° 1768 ——
the 2th we Caim out of braddore went into the gleboye
the 5th we went to Newfoundland to wood the 8th Caim
" out the 9th got into Shotte the 12th went to Sea ——————

4 the 12th 7th m° 1768 the wind at SW Caim out of Shotte harbour
" bound to Sea stood along shore to the Eward so ends the day
" the 13th 7th m° 1768 the wind at south stood to the N E by E at 6
bellile bore W by S 15 leagues Dist at 12 the wind Dies away
Calm at 4 a.m. breases to the Eward laid in N by E fogey
blew warter the fog Clears Latt in by obs 53=27 N So
" ends the Day ————————————————————

5 the 14th 7th m° 1768 the first part the wind at S by N
" went abouts stood to S S E the wind Dies at 7 almost
Calm Lay under trs & frs head to N ward the latter part
at 4 a.m. the wind breases at S S E made sail stood to the
N E by E saw fee plenty had Dark blue water Larg swell
heft to Sward Latt in by obs 53=42 N steard S N E 4
" hours so ends the Day ————————————————————

6 the 15th 7th m° 1768 the first part the wind breases thick
fogy had green water at 8 hove too under trs & frs stood to Eward latter
parts Clear made sail stood to Eward saw finbacks & hag
lets plenty at M D Saw several Races Latt in 54=38 N
" so ends the Day ————————————————————

7 the 16th 7th m° 1768 the first part the wind at S S by S
at 6 went abouts stood to the W N W at 8 the wind bloes fresh
stood to the Eward under trs & frs Larg Sea from Sward
latter part the wind hals to N E at Eight took the Jbb
hove of stood to N W blew water som haglets & finbacks
Runged Latt in 54=38 N So ends the Day

1 the 17th 7th m° 1768 the first part bloes fresh
at 8 a.m. the wind D s made sail Saw Races
green water haglets plenty the hals to N by W the latter
" part Larg Swell Small wind Saw fee Latt in
" 54=3 N So ends the Day

the 18th 7ber 1768 the first Part the Wind at
SSE Stood to NE the Wind breaks Stood to NE
Vnder two fs the Latter Part Very Ruged bloes
hard Rain at 4 handed the fs Lay atry fog
So Ends the Day

the 19th 7ber 1768 the first Part Ruged & fog at 6
the Wind Dies Sot fs Laid Vp NE by E the Latter Part
Moderate made Sail Raees Som fog Latt Jn 55-36
So Ends the Day

the 20th 7ber 1768 the first Part Moderate & fog
Stood to ENE the Wind Small the Latter Part made
Sail Laid Vp EbyS by Compass fogey Som Rain
Green Water So Ends the Day

the 21th 7ber 1768 the first Part the Weather mod
Somthing fogey at 2 pm bore away Stood to NE by E
the Wind at South had Very green Water haglets
plenty the Wind Starts to the Eward Run Vnder
topsls fs the Part a quick breafe made Sail
Run NE had green Water Judge We mad 34 League
Dists from 2 pm Cloudy So Ends the Day

the 22th 7ber 1768 the first Part the bloes fresh
at SE by S Stood to NNE Cloudy at 8 Lay atry
Laid Vp East Ruged the Latter Part Very Ruged
thick Durty Rany Weather bloes hard Very Large
bad Sea at four Laid about the Wind at SSE
So Ends the Day

the 23th 7ber 1768 the first Part the Wind Dies
the Sea Very bad almost Calm the Latter
Part Jumblin Small Wind made Sail Stood
to Nward Very Jumblin hald to Eward to head
the Sea green Watter Som fog and hafey
Latd Jn by Obt 59-39 N So Ends the Day

the 24th 7ber 1768 the first Parts Ruged
Small Wind to Sward Stood Eward the Sea
Very Large and Js a tarable Rage Lay atry
the Latter Part bloes fresh at 4 Sot the fs
Stood to Eward Very Squaley and Ruged

ats 6 am our Dad.r Saw aplenty of spearm.ty a
Wore stood to the E.ward Latt.d In by obs.t 60=6 N
So ?ands the Day

the 25th 7 m.o 1768 the first part the Weather Somthing
better ats 1 Wore stood E.ward Sot the Jibb ats 8 handed Jibb
the Latter parts the Wind ats S.t by E. made Sail Stood to
the E.ward Saw a Rite Whale bound to N.ward gave her
Chase 6 hours Could Not Strike her the Weather Ruged the
Sea very Choplin stood to E.ward Latt.d In by Sob d
60=43 N So ?ands the Day

the 26th 7 m.o the first part Choplin Saw Rite
Whales very Plenty Could Not Strike them Ruged
Stood to E.ward the Wind ats SE Latter part theek Weath.r
the Wind ats East bloes fresh at 8 Laid about Lay at.g
Rain the Wind and Sea Increases So ?ands the Day

the 27th 7 m.o 768 the first the Wind to the E.ward.
bloes freffien hard very Larg Sea ats 5 the Wind bloes
In two places Lay a hull 8 hours then sot ballen.r
M.s the Wind Dies the Latter part the Wind N.N.W
Ruged Durty Weather som Rain Sots the ors Stood
the NE So ?ands the Day

the 28th 7 m.o the first part Ruged the Wind at N.W
Snoke with Jos Clarke & Benj.a Clarke ats 4 Laid about
Stood to S.ward Mended our ors and Sot him the Latter
parts Clear but Ruged Saw Some Rite Whales Stood
to S.ward the Wind at W.N.W Latt.d In 61=0 N Judge We
Was In 62 yest.d So ?ands the Day

the 29th 7 m.o the first part the Weather moderate the
Wind to the N.ward Latter part good Weather Stood to E.ward
Saw the Land stood In shore till We Was Within 20
Leagues Cald it Cape Dissolation the Land Was very
Ruged & Mountanious ats 8 Went about the Wind
at S.S.W Latt.d In by obs.t 61=48 N So ?ands the Day

the 30th m.o the first part bloes fresh ats 4 brot too
& stood the S.o the Wind ats S by W bloes hard bad
Sea the Latter part very Ruged very sharp bad
Sea Rains So ?ands the Day

the 31th 7 m.o the first part Very Ruged till 8 the
Wind Dies the Latter part Stood to S.ward the Wind starts the
West small breeze ats 6 the Wind starts to S.ward
bloes afresh the Wind at S by W bad Sea Latt.d In by
obs.t 62=18 N So ?ands the Day

the 1th 8 m.o 1768 the first Ruged ats 2 Wore stood the
fr.s head to E.ward very sharp bad Sea the Latter part
the Wind to W.ward moderate So ?ands the Day

the 2th 8 Mᵒ 1768 the first Parts the Wind at
WSW Stood to S ward the Latter Parts good Weather
Small breaze to S ward Latd In by Obsᵈ 61=42 N
So Ends the Day   Saw the Land

the 3th 8 Mᵒ the first Parts good Weather very
Small breaze the Latter Parts the Wind to N ward Small
breaze at 8 am made Sail Stood S ward had Dark Coulerd
Water the Wind breazes gibd Stood to SE Saw Ice
this Morning Saw the Land Latd In by Obsᵈ 61=27 N
So Ends the Day

the 4th 8 Mᵒ the first Parts good Weather Stood
to SE by E good breaze at NNE Dark Coulerd Water
Very Racy Saw a boundence of Ice at 6 Saw 16 Islands pr site on
the Land bouts 6 or 7 Leagues of the Weather thick
Stood of to WSW Latter Parts good Weather Spot
With obed Peas the Wind at WNW Som fog
the Sea Smooth So Ends the Day

the 5th 8 Mᵒ the first Parts good Weather
Saw the Land   at 8 More Stood S ward
Som fog the Wind Small the Latter Part
Durty Weather and thick fog the Wind at
South So Ends the Day

the 6th 8 Mᵒ the first Parts Durty Weather
thick fog the Wind at SSE at 8 Went about
Stood to E ward the Latter Part fogey at
2 glins to E ward Saw the Land 6 or 7 Leagues
of the Wind bloes hard bad Seas Wore Lay
a vry thick fog So Ends the Day

the 7th 8 Mᵒ the first Parts thick fog got
the fore the Wind at SE Saw finbacks the Latter
Parts moderate made Sail the Wind at SW Sets
In thick fog Stood to S ward So End the Day

the 8th 8 Mᵒ the first Parts the Wind Small Stood
to E ward fog the Latter Part Moderate and fog
the Wind to N ward had a good obsᵗ Latd In 60=10 N
So Ends the Day

the 9th 8ber 1768 the first Dart the Wind
to N:Ward Small breafe made Sail Stood to S:ward
at 4 foy glins Saw a kite Whale gave her
Chafe Could Not Strike her hugd the Wind at
North the Latter Dart hugd the Wind at E
hugd made Sail Stood to the S: ward Saw
kite Whales plenty Chafd them with the Vessell
Could Not Strik them bloes fresh Stood S.ward
foy So Ends the Day

the 10th 8ber 1768 the first Dart Small
breas to Nward foy Jumlin Seas at almost
Calm handed the Ms Sot theit & Stood to
the South by Compass the Latter Dart at 4 the
Wind breafes to the NNE made Sail Steard S by E
at 10 Jbb Steard SSW and SW by S the Wind brea
Seas Rifes Judg our Selves at Mrd So Lat
58=0 So Ends the Day Judge We mad our Cou
SBy E Dift, 114 m Dep 22 m East

the 11th 8ber the first Dart bloes fresh bad
Sea had Dark green Water Somthing Racy Cloudy
the Sea & Wind Increfes at 6 took two Rfs in
the Ms the Wind at North by Compass find our
Compafs to have 3 mits Vryation Steard SW by S
the Latter Dart Clear and fresh breas
at 4 am Sot the frs & Jbb Judge We made
our Course abouts South Dift 184 m
Latt Jn by Obs 54=56 N So Eand the Day

the 12th 8ber the first Dart the Wind Dies
the Weather plesent the Wind Starts to Westwa
and Dies at 6 Sot Whsolle Sail Steard SW
the Latter Dart good Weather Saw Several
Vesells the Wind at NNW Went abouts South
to NWard Spoke with Capt good Spede told
Us Whales Was plenty on the Cofte
Latt Jn by obs 53-18 N So Eand the Day

the 13th 8ber the first Dart good Weather
at 6 Saw Whales Struck one Loft her Loft
Loft one Iron & 12 or fifteen fath to Cline
the Latter Dart at 4 Made Sail Saw Whi
Saw

gave them Chase Could Not Strike
the Wind to the S ward Rugid & Rain, Carts
onboard broughts two So Ends the Day.
the 14th 8ber 1768 the first Part the Weather
Moderates stood to N ward bad seas Saw whale
Plenty the Latter Part good Weather Somthing
Rugid Stood to S ward whole sail Latt pr
by obs 54=6m N thick green water So Ends the Day
the 15th 8ber 1768 the first Part good Weather
stood to SS had Dark Coulerd Water the Latter
Part good Weather So Ends the Day Latt pr 53=40 N
the 16th 8ber the first Part good Weather the
Wind at S ward stood to N ward the Latter Part
good Weather stood to S ward Latt pr 53=11m N
So Ends the Day
the 17th 8ber the first Part good Weather the
Wind at NNW stood to W ward spoke with
Silvenius Rusell & farthew Bunker the Latter
Part Rugid Carried for to W ward & S ward
Latt pr 52=30m N So Ends the Day
the 18th 8ber the first Part Rugid the
Wind at NNW the Latter Part good Weather
Made sail Stood to S ward Saw aboundence
of Hagens Very thick Latt pr by obs 51=25 N
So Ends the Day
the 19th 8ber the first Part good Weather
Stood to SSE Saw finbacks the Latter Part
good Weather Spoke with Ysiah & Sellathiel
Eldredge Saw whales Latt pr 51=5 N So Ends
the Day
the 20th 8ber the first Part Somthing
Rugid at 4 Kild one whale pr Co with
Carts Rusell the Weather good the Sea bad
whale sunken the Latter Part good Weather
Cut our whale Lost one spade So End
the Day Latt pr 51=16 North

the 21th 8ber 1768 the first parts hugid for
cuting the head hair the Latter parts
at 8 went to trying the weather good the
the wind at NNW settled to Eward Latt
Lm 51=15th So Eands the Day

22th the first parts good weather fetched a
Raft of bluber from Capt Russell the
Latter parts the Wind at the Eward So —
Eands the Day

the 23th 8ber 1768 the first parts som
thing Dirty Stood away our oyl
the Latter parts the wind ats WSW stood
to Sward hugid & fog ats Md the fag
glins Latt Lm 51=15th N So Eands the Day

the 24th the first parts made sail Stod
to NW Latter parts hugid Saw finbacks
So Eands the Day

the 25th 8ber the first parts hugid the wind
to the Eward and S ward Latter parts hug
Latt Lm 51=18 So Eands the Day

the 26th 8ber the first part Dirty weather
Latter parts the wind to Nward stood to Sward
wind hals to WNW Latt Lm 50=22 N So Eands
the Day

the 27th 8ber the first parts Clear
the wind at NW Stood S ward Under tws forsail
fbb the Latter parts the wind at NWoCm lieor
Saw Wogens & finbacks Latt Lm 49=30 N So
Eands the Day

the 28th 8ber the first part Clear
the wind at NNW Stood to Eward Latter
parts good weather at 8 made sail Stood
to E ward Latt Lm 48=35 N So Eands the Day

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John ffowland His Hand & Acm

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the 24th 9ber 1768
the first Part. good Weather the Wind at N by W stood
to Wward Judge my self In Longd 52=15 W Was
In Latd 42=54 N bound toward home had green Water
and Kaels Saw two humpbacks the Wind Variable
and Squaley the Wind ats North the Latter Part
bloes fresh Jumblin had blew Water flying Clouds
had agood Obs Latd 42=11 N So ßands the Day

Course	Dist	Diffr of Latd	Latd pr	Diffr of Longd	Longd pr	Der	Mer Dift
S 65=40	97	43	42=11	119	52=14	87	81

the 25th 9ber 1768 the first Part good Weather the
Wind at N small breafe the Latter Part good
Weather the Wind Dies ats 4 Calm Clear and
Plefents Latd pr by obs 42=7 N So ßands this Day

Course	Dist	Diffr of Latd	Latd pr	Diffr Longd	Longd pr	Der	Mer Dift
S 85 W	45	4	42=7	61	55=15	45	132

the 26th 9ber 1768 the first Part good Weather
a small breas from the SE bent our New Ms
at 8 the Wind breafes the Latter Part Dirtty fresh
breafe Snoke with a Ship bound to E ward had
blew Water had a noone Obs Latd pr 42=00 N
So ßands the Day

Course	Dist	Diffr of Latd	Latd pr	Diffr Longd	Longd pr	Der	Mer Dift
S 86 W	103	8	42	140	51=35	103	235

the 27th 9ber 1768 the first Part the Wind Shifto
to WNW stood to N ward Squaley the Latter Part
bloes fresh bad Sea ats 12 brought two under trefs
firs at 5 the Wind bloes hard Stood the frs the Wind
at W Latd pr 42=55 N So ßands the Day

Course	Dist	Diffr of Latd	Latd pr	Diffr of Longd	Longd pr	Der	Mer Dift
North	55	55	42=55	0	51=35	0	235

the 28th 9ber 1768 the first the Wind to W ward stood N ward
Squaley at 6 Laid about hauved the frs bloes fresh
the Latter Part hanged ats 6 the Wind Dies Sots the
frs Stood to S ward the Wind at NW at 10 Sot Rfd
Ms Latd pr by obs 42=42 N So ßands the Day

Course	Dist	Diffr of Latd	Latd pr	Diffr of Longd	Longd pr	Der	Mer Dift
S 35 E	16	13	42=42	12	51=23	9	226

the 29th 9ber 1768

the first part the wind variable went about
Laid Vi NWbyW very Squaley at 3 handed the
Ms. and Jibb at 4 kfd the Ms Sot him at half
after 4 very Squaley hand Ms sot the trs. and
kfd frs. at 6 handed the frs bloes hard the
Wind at W head to Sward bloes exseeden
hard very bad Sea the Latter part the Wind
Starts to Nward bloes exsesive hard by Squ
at 9 the Wind Dies Sot kfd frs. Laid Vi WSW
Latd in by Obs 42=30 So Eands the Day

Course	Dist	Diff of Latd	Latd in	Diff of Longd	Longd in	Derd	mr Dist
S30=15E	14m	12	42=30m	9m E	59=14m	7m	219

the 30th 9ber 1768 the first part kuged Stood to
Sward hole frs. the Latter part kuged at hove
Stood to Nward blew Water Latd in by Obs 41=55N
So Eands the Day

Course	Dist	Diff of Latd	Latd in	Diff of Longd	Longd in	Derd	mr Dist
S13=0W	36m	35	41=55	11m	57=25	8m	227m

the 1th 10ber 1768 the first part the Weather Moderat
at 4 made Sail the Wind at NW stood to Nward
at 8 took 2 kfs in Ms. Went about the frs
Latter part moderate Sot whole Sail almost
Calm at 6 Small breas from the Sward
Latd in by obs. 41=57m N So Eands the Day

Course	Dist	Diff of Latd	Latd in	Diff of Longd	Longd in	Derd	mr Dist
N85:40W	25m 2m	41=57m	22m	57=52m	20	252m

the 2th 10ber 1768. the first part the Wind
at SSW Run to the NWbyW at 4 took 2 kfs
in Ms. handed the Jibb Wind bloes fresh bad Sea
Rain at 10 m the Wind shifts to W the
Latter part bloes fresh at 2 am Sot the trs
the Wind hals to NW kuged bad Seas Latd
in by Obs 42=48 N So Eands the Day

Course	Dist	Diff of Latd	Latd in	Diff of Longd	Longd in	Derd	mr Dist
NW	71m 51m	42=48m	69m	59=1m	51m	303

the 3th 10ffr° 1768 the Wind at NW Dies at 2 mm
the first Dart the Wind small made
Laid about at 8 the Wind small made
Sail Wind NNW at 11 Calm the Latter Dart
Calm at 8 am the Wind breases to the E
ward Lattd p by obsr. 42=50 N So Eand the
Day

Course	Dist	Diff Lattd	Lattd in	Diff of Longd	Longd in	Dep mr Dist
N85=30 W	26=2 m	42=50	36 m	57=37 m	26=32 9

the 4th 10ffr° 1768 the first Dart good Weather
the Wind at SE breases at 7 Dusty took 2 Rfs
p m° the Wind Dies Starts to Sward at 10 the p
at WSW the Latter Dart Wind small at 4 am
Wents abouts Laid in WSW the Wind huls to E
ward small breafe at 10 the Wind breases Lattd
p by Obd 42=32 N So Eand the Day —

Course	Dist	Diff Lattd	Lattd in	Diff of Longd	Longd in	Dep mr Dist
183=15 W	78 m 18 m	42=32 m	105 m	61=12 m	77 m 406

the 5th 10ffr° 1768 the first Dart small breaf
to Sward Dusty the Later Darts Small Wind
Variable Som Rain Saw Several Sail at SE Calm
at 10 the Wind breases to the Sward had a poor obd
Lattd p 42=45 N So Eands the Day —

Course	Dist	Diff Lattd	Lattd in	Diff of Longd	Longd in	Dep mr Dist
N76=15 W	48 13 m	42=45	62 m	62=14 m	46 m 45 2

the 6th ffr° 1768 the first Darts the Wind Dies
Saw Spanmositycs Dusty Gane them Chase
Could Nott Strike them the Wind Dies Lay
a Try the Latter Darts the Wind breases
at SE made Sail Stood to Eward the Wind
to Sward huls to Sward Saw several Sail
Racey hugid Lattd p by obd 43=16 N
So Eands the Day Wind at WbyS

Course	Dist	Diff of Lattd	Lattd m	Diff of Longd	Longd m	Dep mr Dist
N31=15 W	38=33 m	43=16 m	27 m	62=41 m	20 m 42

the 7th 10 ber 1768 the first part the Wind blow
fresh to the W by S Stood Nward bad Sea the Wind broke
took two Rfs in me handed foresail at 8 Sot Tsls
Laid about Stood to Sward the Wind W N W
the Latter part Auged bloes hard flying
Clouds very sharp Seas Lattd In by obd
42=48 N So Fands the Day

Course	Dist	Diff of Lattd	Lattd In	Diff of Longtd	Longtd In	Dep.r	Mer. Dist
S16=0 W	29 m	28 m	42=48	11 m	62=52	8 m	480 m

the 8th 10 ber 1768 the first part Auged Stood
Sward at 4 Wore Laid Up N W by N the Latter
parts the Wind at So S W Sot Rfd me very bad
Sea Squaley at 11 the Wind hals to West Lattd
In by Obd 43=15 N So Fands the Day

Course	Dist	Diff of Lattd	Lattd In	Diff of Longtd	Longtd In	Dep.r	Mer. Dist
N W	38 m	27 m	43=15 m	37	63=29	27 m	507 m

the 9th 10 ber 1768 the first part bloes fresh
at West Stood Nward sharp Seas at 4 Sot the Tsls
at 8 Laid about the Latter parts moderate
Wind bad Sea the Wind hals to Sward Wore Stood
to Nward at 6 the Wind at S W made whole
Sail the Wind Starts S S W breaſes bad Seas
ahead Lattd In by Obd 43=32 N So Fands the Day

Course	Dist	Diff of Lattd	Lattd In	Diff of Longtd	Longtd In	Dep.r	Mer. Dist
N W	24 m	17 m	43=32 m	23 m	63=52	17 m	524

the 10th 10 ber 1768 the first part the Wind at South
Steard West Spoke With a Schoner told Us She
Was 25 Leagues to Eward of the Island Sables
Which Was 45 Leagues to Sward of our Reeken
told us they had 50 fathoms Water at 6 the Weather
Very Squaley Rain took two Rfs in me at 10
the Wind hals to W S W the Latter part at 3 m the Wind
hals to West at 6 N W went about bad Sea
the Wind Stays to W N W fresh breas Lattd In
by obd 43=59 N Judge We are about 5 or 6 Leagues
to Sward of hallifax about 17 Leagues from the
Land So Fands the Day

the 11th 10ber 1768
the first part bloes fresh at WNW stood
to Sward flying Clouds the Latter part ranges
the Wind at West Lattd In by Obsn 42=11 N
Made 88 m Diffr of Lattd and 25 m to Westward
So hands the Day

the 12th 10ber 1768 the first part ranges Spoke
With Capt Daniel Ricketson, stood to Nward
the Wind bloes fresh at 6 Wind at SW Latter
part Wind to Sward bloes fresh Dirty at 8
bad Sea. Lattd In 42=58 m N had 50 fath Water
on browns bank Diffr of Lattd to Nward 47 m made
70 m to W.ward So hands the Day

the 13th 10ber 1768 the first part ranged Wind
at NW.byW very sharp Sea the Wind starts to the
NW the Latter part Moderates Sounded had 50.
Water on georges bank Clear only flyings Clouds
Lattd In 41=51 N Diffr of Lattd 67 m
made 35 m to Wward So hands the Day

the 14th 10ber 1768 the first part good Weather
flying Clouds the Wind at NW
the Latter part Calm good Weather made 25 m
Lattd In 41=9 m N So hands the Day

the 15th 10ber 1768 the first part good Weather
very small breeze to SE had 40 fath Water
the Latter part Calm had 35 fath Water
fine Sand Cloudy had No Obsn So
hands the Day made 20 m to Wward

A Journal of our Intended Voyage from
Dartmouth to Maryland in the Sloop Triton

the 21th 12 mo 1768 the Wind at North at 6 Cairn this morning
to Sail in Doneganfett bound to Sea Cloudy
the Wind small So Ends the Day

the 22th 12 mo 1768 the first Part Cloudy the Wind Starts
to Eward & breazes at 4 block island bore North
about 7 Leagus Dift Steard SW the Wind at NE
Durty at 12 took 2 Rfs in the Ms at 2 gibd the Ms
Splitt him from the Double Reaf having a fory
the grumsets 2 thirds to the Luff Sot the frs blees
hard at 5 Stode the frs Run Under bare poles at 10
Sot the trs Rains & Snows So Ends the Day

Course	Dift	Diff of Latd	Lattd pr	Diff of Longtd	Longtd pr	Dep	Md	Dift
S33-5°W	144m 126m		39-15m	104m		71 42m	50	80

the 23th 12 mo 1768 the first Part blows hard Snows
the Wind Starts to NNW
Sot the frs the Latter Part blows hard at 2 Stode
the trs Lay till 10 flying Clouds Lattd pr by
hd 135 fath water
Obs: 37=42 N So Ends the Day

Course	Dift	Diff of Latd	Lattd pr	Diff of Longtd	Longtd pr	And	Md Dift
S37-30°W	116m 93m		37-42	94m		73=16m	71m 151m

the 24th 12 mo 1768 the first Part blows hard at 5 handd
the frs Lay ahoy Wind NW Latter Part the
Wind Dies Cleare at 2 am Sot the frs at 6
the Wind small bint our Ms at 10 the Wind
at SW Wts about Wind breazes Lattd pr
by obr 36-47 N Stroke with Capt Steadman
So Ends the Day

Course	Dift	Diff of Latd	Lattd pr	Diff of Longtd	Longtd pr	And	Md Dift
S37°W	64m 55m		36-47m	42m		73=55	33m 184m

The 25th 12 mo 1768
The first Dart the Wind blow fresh at NW
had 16 fath Water at 5 the Wind dies had 14 fath
Red gravel at 6 saw the Land baring WSW
6 Leagues Dist Cald ft Cape Henry Land NWbW at 11
had 6 fath Went about saw Cape Charles
about League of the Wind at Nby E the
Latter Dart the Wind dies at 4 am had 10 fath
Went about saw Cape Henry baring NWbW
3 Leagues Dist Laid In NWbyN had 9 = 8 = 7 fath
the 10 fath at 6 Calm Smoth & Cleare Latd
In by Obd 36 = 56 N Cape Henry bore
NWby N 5 Miles Dist So Ends the Day

Course	Dist	Diff of Latd	Lattd m	Diff of Longd	Longd m	Depd	Mird Dist
N 80 W	52 m	9 m	36:56 m	64 m	75 - 2 m	51 m	235 m

The 10th 3 mo 1769 this Day Caim from Virginia &
the 15th got Into Bedford ———

John Howland

IOHN × HOWLAND

A Journal of an Intended Voyage from Dartmouth to the Straites of Bellile in the Sloop Called the Reliance in the year of our Lord 1769 ————

The 22th 4 mo 1769 this morning Laid anchor in Bedford Bend at NW the Wind small so hands the Day ————

The 23th 4 mo first Part Calm at 3 pm Wind breases at NW at 6 Came by Nantucket Point fine breaf Steard S by South till 8 then SWS Clear Plesent Weather the Latter Part breases Starts to seward Large Sea, at mid. took one Reaf In mo Latt in by obs 41-42 N so hands the Day Dist 105 m ———

The 24th 4 mo 1769 the first Part breases Looks Dusty at 2 saw 3 sail a head Large sea, the Wind at South at 2 took 2 Rfs In mo at 6 hands the ms & gibb Set the frs Steard Eath Dusty Weather Latter Part thick at 4 Wind Dies at 6 got hole sail Large Swell from the SW Wind small had a noor obs Latt In 42-56 N Steard NE from 6 am so hands the Day Dist made 130 m ———

The 25th 4 mo 1769 the first Part thick Weather & small breaf from West Stood to the NE at 6 NE by E Latter Part at 2 the Wind Shifts to Eward Stood In for the Land at 4 saw the Land Was almost breft of hallifax Litehouse Calm at mid Obs In Latt 44-10 North So Ends the Day

The 26th 4 mo 1769 the first Part god Weather

The 16th 6 mo 1769 this Day Killed one Whale between Capt Russell & our Silves

The 2th 7th mo 1769 this Day Saild for Newfound Land to git Wood ————

The 8th 7Mo 1769

this Day Caim out of Redbay bound to Sea
the Wind at North Cloudy —

The 9th 7Mo 1769 the first Part of this 24 hours
the Wind at SW at 6 Was abrest of Bellile
and bound toard the Western Jslands Squaley
the Wind Variable the Latter Part good Weather
the Wind small & Variable Lattd by Obt 51=21m N
Dist from bellile 59m Course SSbyS ½ E —

The 10th 7Mo 1769 the first Part moderate
good Weather the Latter Part fresh breaze
to the SW had blew Water Steard SS Lattd
Jn by Obt 50=40m N Dist 93m Course SS E ½ S

The 27th 4mo 1771 this Day Saild for the straghts
of Billile the 2th 5mo got into the gut of Canso
the 4th Went thoough the gut obfrd. of With Cole
Jslands in Lattd 45=50m N 10th made the N Shore
Went into Amealung in Lattd 50:35m North
18th got into Braddore the 25th 6mo Left
Billile Bound to Northward Steard out NE
29th Killed one Whale in Lattd 55=15m
the 4th 8mo Struck a Whale & Loft her —
the 14th 8mo Struck a Whale Loft her —

A Jornal of our Intended Voyage —
from Dartmouth to Virginia in Sloon Nelley
John Howland master - 1771 —

17th 12mo 1771 This morning at 7 oClock Came to sail Bound to sea the
Wind at N.NW good Breas at noo Block Island bore WNW
3 Leagues Dist Steard SW by Compass had a good
Obs.t Lattd in 41-12 North So hands this Day — N

She 18th 12mo 1771 the first Dart good Weather the Wind at
NW at 3 pm Blockesland bore N.t 8 7 Leagues Dist Somthing
of a head Sea at 10 pm handed Mansail Set frs Wind
hals to W N W Latter Dart Somthing Cloudy at 8 am Wind
at West a Swell from W S W quick breas Latld in by
obs.t 39-5m N So hands this Day ———

Course	Dist	Diff Latd	Latd in	Diff of Longd	Longd in Depr	mod Diff
S 34 W	152¾	127	39-5m	110	71.35	85 - 85

She 19th 1771 the first Dart good Weather moderate Breses
little Wind at West Latter Dart at 4 am almost Calm
at 6 am Wind Breaes at ENE hals to ESE Blows frish
Som Rain Steard SW by W So hands this Day

Cours	Dist	Diff of Latd	Latt in	Diff of Longd	Longd in Depr	mod Diff
S 27 W	88 - 78	35:47m	51 -	72-26m	40m	125m

She 20th 12mo 1771 She first Dart the Wind bloes
hard Very Durty & Rany at 2 pm hone two Indes Frs
head to Sward Wind Starts to Sward & Nward at 8
Set frs Wore stood West Wind Starts Northeward & Dies
at 10 Wind small Latter Dart Wind bloes hard
at NNW at 8 Wind Dies Sot 2 Rf ms & Jbb Cloudy
Brakes Wind Dies at 10 Sot Whole Sail had a good
obs.t Latld in 36-41 N Sounded had 12 fath Water
So hands This Day ———

Course	Dist	Diff of Latd	Latd in	Diff of Longd	Longd in Depr	mod Diff
S 49-15 W	99m - 66	36:41	90m	73:56 - 71:--	196

The 21th 12 mo 1771 the first part good weather
the Wind at NW had 10 fath Water at 2 made the land
a head 7 Leagues Dist at 6 Went about the Wind dies
nals to West Judged We Was about 10 Lagus from
Cape henvy Latter part almost Calm at 7 Wm
Breases to gward Sot Squarsail Steard NWbyN
at mid Was in Latd 36=56 N Cape henvy bore WNW
1 League Dist So yands this Day ————————

Course	Dist	Diffe of Latd	Latd in	Diffe of Longd	Longd in	Dew	mid Dist
N 56 W	49 m	27	36=56 m N	58 m	76=46	40	236

A Jornal of our intended Voyage from
Dartm° in New England By Gods assistance
Bound to London in the Brigt Joseph
& Judeth John Howland master 2th of Sentemr 1775
this morning Came to Sail in Bedford harbor
Bound to Sea the Wind at NE by E at 12
o Clock Was abreft of Nomans Land Steard
SE by E at 4 from the high Land of the
Weft End of Marthas Vinyard bore Northe
About 6 League Diftt it being in Lattd 41=15
Longtd 69=12 Weft from Which I take my
Deperter W°

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firft Day 3th 9m° 1775 at 4 Clock this after Noon
the Wind at NE by E Steard SE by S at Night Cloudy
and Something Squaley Rfed topsails & mainfail
Latter part Durty bloes frefh at 4 am handed
topfails & Staifail the Wind hals to E ward Rains hard
at 10 am the Wind hals to ESE & Dies at mod Wind
hals to NW Very bad Sea & Large Swell from NW
Went about Steard Eaft Cleare W° blue water

Courfe	Diftt	Diff Lattd	Lattd in	Diffr Longtd	Longtd in	Depr	mrd Diftt
S 14=0 E	45 m	40=30	15 m E	68 57 = 11			11 m

Second Day 4th 9m° 1775 firft part Wind Small tolarable
good Weather only Very bad Sea at 2 Dm made Sail
the Weather Clears Steard Eaft Very Small Brefe Verghumid
the Latter part moderate the Wind at ESE at 6 Set
topgallent Sails Steard Eaft Sea falls to day Saw 2 Sail one to Northward the other
to Southward at mr had a good obfervation Lattd
in 40=53 North

Courfe	Diftt	Diff Lattd	Lattd in	Diffr Longtd	Longtd in	Depr	mrd Diftt
N 85 20 E	55=23	-40-53	66	67-57 m	50 m	61 m

Third Day 5th 9 mo 1775 the first part good
Weather Wind at S by E and small steard E by S
at 8 pm wind hauls to S by W steard S by E at 11
oClock had 35 fath Water on georges Bank Latter
good Weather at 6 am had 26 fath Water this morning
saw several sail spoke with Capt Wm Hussey
at 9 from whaling Bound to Newyork No Whale the
Wind small and at SW set studensails had a good
observation Latd in 40=53 North

Course	Dist	Diff Latd	Latd in	Diffs Longd	Longd in	Dept	mrd Dist
East	67 m	0-0	40:53	89 m	66=28	67 m	128 m

fourth Day 6th 9 mo 1775 the first part good Weather
the Wind starts to West at Night the Wind breezes
steard S by E the Latter part at 4 am wind shifts
to Northward very good Weather at mid had a good
obsr Latd in 40=38 N blew Water gulfweed
Variation 1 pint westerly

Course	Dist	Diff Latd	Latd in	Diffs Longd	Longd in	Dept	mrd Dist
N 81 E	92 m	15 m	40=38	120 m	64=28 m	91 m	219

fifth Day 7th 9 mo 1775 first part good Weather Wind at N 38 smooth
Sea Latter part good Weather the Wind at E ward
and small Cloudy No obsr

Course	Dist	Diff Latd	Latd in	Diff Longd	Longd in	Dept	mrd Dist
S 75=50 E	45 m	11 m	40=27 m	58 m	63=24	44	263

sixth Day 8th 9 mo 1775 the first part small Wind
at ENE smooth Sea Latter part good Weather Latd
in by obsr 40=45

Course	Dist	Diff Latd	Latd in	Diff Longd	Longd in	Dept	mrd Dist
N 62=45 E	39 m	18 m	40=45	46	62:38 m	35	298

seventh Day 9th 9 mo 1775 the first part good Weather
the Wind small & Variable Latter part Cloudy & some
Rain the Wind to Seward very flattering no obsr

Course	Dist	Diff Latd	Latd in	Diff Longd	Longd in	Dept	mrd Dist
N 68=45 E	28 m	10 m	40:55	34 m	62=4 m	26	324

First Day 10th 9ber 1775 the first part good Weather
the Wind at SW small Breeze Saw a Sloop to Leward of us
Latter part Cloudy Wind very Variable no obsr:

Course	Dist	Diff Latd	Lattdin	Diff Longd	Longd in	Dep'd	mr Dist
N 63.10 W	29m 13m	41.8	34	61-30	96	350	

Saonday 11th 9ber 1775 the first part Cloudy Rains
the Wind at SW B stood to N ward Saw 5 or 6 sail
Standing to S ward I supposs ware Lumbermen Bound
to West Indies in the Evening the Wind starts to SE
breze Latter part Storiney at 4 am imboyd Rifd both
topsails & mainsail hold Staisails at 6 am handed
topsails Wind increases at 8 am hove too under fore
the Storm increases the Wind halls to E ward at
half after 8 Wore Laid a hull at 9 am the Wind
Shifts to the NNE in a very heavy squall over Set
the Vessell indeaved to git her afore it hisfed fore Stay
Bloed away as fast as he shifted him Looss the Weather
Wing of the fore the fore yard Lowerd Down Bloed
away as fast as Looss put the helm a Weather she
Was so far gone the Helm had No power of her her
Croochet yard Lay in the Water her Lee pump
in the Water almost all the time and no box in it as the
pump was out of order and one of the people had Just Drawed
the Boxes and as he took the Lower Box in his hand
a Sea Struck him he Nearely Escaped going overbord
and Lost the box past all hopes of her Righting
Cut away the main mast Jam him after he Was
gone over the Side the Vessell hightted
Imidiately the fore topmast Went Just above the
Cap the Vessell fell off We got her afore it
Which I Imagin Was about 11 oclock the
Wind starts to NW Continues it Violence
We Lost all the Rigen Belonging to the main mast
of Consequence With the main topsail & main sangalem
Sail and part of the mainsail and Narle of the
boom and Every thing that Could git Looss on Deck
Except the Longbot which Washd out of her Lashings
and Shot in foorward and we Saved her Lost the Rest
of the foresail & tore him to peaces Very much
Lost a Considerable of our Bread & all our
Salt the Water Washd in at the Cabon windows or
Deadlites So that the Cabenfloweras Covered with Water

Lost our Spare top mast Loft Howers and Sundey other
thing with the quarter bords offof one quarter Loft
our Cook gees and had Nearly Loft our booboos

Course	Diff	Diff Latt	Latt in	Diff Longd	Longd in	Dep mrd Diff
N 48 E	56ᵐ	38	41=46	56ᵐ	60:34	42ᵐ 392

Third Day 12th 9mᵒ 1745 the first part the Wind
at NW bloes Exceeding hard Sanded till 7 Oclock
pm (at 6 the Wind abated) and howe too under
bare foremast and was the Chef we had at Command
Clear the Latter part huged the Wind at NNW
went to work to git more Sail on the Vessell got
Down the fore topsail & bent him for frt
Latt in by obsr 41=12 N

Course	Diff	Diff Latt	Latt in	Diff Longd	Longd in	Dep mrd Diff
S 65 E	36ᵐ 34ᵐ	41=12	4ᵐ	60=30	3ᵐ 89.5ᵐ

Fourth Day 13th 9mᵒ 1745 the first part moderate a big
Sea going the Wind at N.W stood to SW Latter part
the Wind hals to W ward at 4 am Went about Madsail
a fast as we could pumlin Sea and Very shoey and many
Dolphin & flying fish Latt in by obsr 40=54ᵐ N

Course	Diff	Diff Latt	Latt in	Diff Longd	Longd in	Dep mrd Diff
S 40 W	23ᵐ	18	40=54ᵐ	70ᵐ W	60:50=15ᵐ W	380ᵐ

Fifth Day 14th 9mᵒ 1745 the first part huged the Wind
at WbyN stood toNward Latter part Wind dies Sea falls
Went to work to git up Jury mast afto ___ Wind hals
to S ward Latt in by obsr 41=51 N

Course	Diff	Diff Latt	Latt in	Diff Longd	Longd in	Dep mrd Diff
N 5 W	58ᵐ 57ᵐ	41=51ᵐ	7ᵐ	60=57	5ᵐ	375ᵐ

Sixth Day 15th 9 mo. 1775 the first part good weather
the Wind at SW Steard Steard NW at Night the Wind
hals to NW Steard WNW Latter part good Weather winded
out mainsail so as to Set Double Reefd Sail so foul Jibb
for fore Staysail Steard NW Latt'd in by Obsr. 48°12'

Course	Diff	Diff't Latt'd	Latt'd in	Diff't Longd	Longd in	Dept.	Mrd. Diff
N 67° W	67 m	19 m	48°12'm	60 m	64°57'm	45 m	W; 330 m

Seventh Day 16th 9 mo. 1775 the first part good Weather
the Wind at NW fine breeze Steard NW byN at Night wind
Breezes Latter part Cloudy the Wind SW foggy

Course	Diff	Diff't Latt'd	Latt'd in	Diff't Longd	Longd in	Dept.	Mrd. Diff
NW	85 m	60 m	43°12'm	82 m	63°19'm	60	270

First Day 17th 9 mo. 1775 the first part the Wind to the
SW thick fog Steard NW at 5 mo. Sounded, got
Ground had 65 fathoms Water Wind very small ketchd
Some fish at 8 small wind Stood to WNW Latter part
the Wind small very thick at 2 am had 45 fath Water Said of hove
too at 6 am Spoke with a Sloop from St. Eustatia 16 Days
out told us he had Spoke with Several Vessells that was left
Much ship Racked he had lost his Jibb and said it
was a very hard gale in Lattd 39 N he was bound to penobscut
Judgd he was on browns Bank Continues thick fog —

Course	Diff	Diff't Latt'd	Latt'd in	Diff't Longd	Longd in	Dept.	Mrd. Diff
NW	18	13 m	43°25'm	17	63°36'm	13 m	W 257 m

Second Day 18th 9 mo. 1775 the first part the Wind very small
thick fog Smoth Sea Steard froetimuch East at 6 pm
Sounded got no ground the Latter part Small Wind the
fog flies at 6 am Saw the Land bareing NNW 12 Leagues
Diff't Stood in NNE at mrd Clear had good Obsr. Latt'd
in 43°48'm So Ends the Day

Course	Diff	Diff't Latt'd	Latt'd in	Diff't Longd	Longd in	Dept.	Mrd. Diff
N 51°30' E	26 m	23	43-48	40 m	62°56'm	29 m E	286 m

Third Day 19th 9 mo. 1775 the first part good weather the Wind
at SW but very small Steard in NW & Drawding with the Land
Latter part Wind very small at 4 shifts to Eward this morning
Saw two Schooners ahead Stood for them at mrd Spoke with
them told us the Small pox was very breefe in halifax he
was abreft with Lehaved the Wind to Eward concluded to goe to
Livespool took a pilot out of one of them to carry us to Lives
pool to give him 8 dollers Steard West So Ends the Day

Fourth Day 20th 9m 1755 the first part the
Wind to Eward thick fog fhere to Westard till 6pm
have too very thick almost Calm the Latter part
fog glins Saw the Land had 10 fath Water was very hard
the Land Stood off Dies away Calm in 16 fath water
Let go the keg anchor Rid till morning the Wind
Breazes at NW hove up Stood off very foggy
at 12 the fog glins Saw the Land went abot
Stood in fethend with in abont 2 mile of
the going into Liverpool the Wind Small bad Sea
Could not git in Went into port Letway &c

the 21th the Wind to Nward at 6 in the morning
Cair out Sood for Liverpool good weather
at 1 Cloak in the after Noon got into Liverpool
to anchor below the bar at 4 Went up to
the Whorfe found there was Rigen plenty
hear but no Dock found there would be
Some Dificulty in Repairing here on acct
of giting Work Done but Not Knowing
Where to better our selves Concluded to Stay
hear to Repair the Weather proovd Very heavy
and Dusty our hands mostly Sick with the flux
on the 23th Richard Wels Runn away from us
and stole his Cloes in the Dead of the Night
got a boy to Cook who Caim onbord 25th and
to goe the Voyage with us Wages on Determind
to give him what is Reasonable sent to halifax
for Duck blocks &c on the 22th Enterd a protes
against the Sear &c Stord Several Leaks in our
Vessell but judgd not all altho she is very tite We
Lay in the mud Concluded if the mud had got in
the Leak hindred from halifax the Small pox Rage
Very much and also the yallow feaver and that
the men of War prefs all the men they could
kitch and no regard to outward bound and also made
prises of the Vessells that belonged to New England

On the 10th October 1775 got Ready for to proseed on
our pasage to London at 10 at Night which the 11th
Day came to Sail the wend to W ward Stby S small
at 12 Was out of the harbour the Wind bears Steare
S S by S Wind SW Latter part the Wind back Stand
to S ward Liverpool in Lad th N & Longd 63..10 W
from which I take my Depr fixed our New maintopse
& fore staysail Latd in by obsn 43..48 N

Course	Dist	Diffr Latd	Latd in	Diffr	Longd	Longd in	Depr	merd Dist
S 76 E	150	12 m	43..48 m	53 m	62..47 W	38 m		135 m

Fifth Day 12th 10mo 1775 the first part Wind at SW by S fresh
fresh at 6 rains to 2 Refs in fore topsail bent forstaysail
handed jibb at 8 moderates have out Reafs Latter part good
Breafe Clear weather Bent maintopsail Wind breafes had
a good obsn Latd 43..25 N

Course	Dist	Diffr Latd	Latd in	Diffr	Longd	Longd in	Depr	merd Dist
S 77..45 E	110	23 m	43..25 m	150 m	60..17 W	107 m		145 m

Sixth Day 13th 10mo 1775 the first part the Wind
at SW by S Dirty weather at 6 handed maintopsail
Reafd fore topsail at 10 pm the Wind halls to W ward
Latter part Wind at W NW good Breafe Ruged
and Squaley weather Set maintopsail handed
Mainsail at mrd had good obsn Latd in
43..12 N

Course	Dist	Diffr Latd	Latd in	Diffr	Longd	Longd in	Depr	merd Dist
S 83..30 E	116 m	13 m	43..12 N	160 m	57..37 W	115 m	26 m

Seventh Day 14th 10mo 1775 the first part the Wind at W NW fresh
fresh Bad sea going Squaley Roled very bad Latter part flying
Clouds Wind and Sea the Same at mrd had a good obsn
Latd in 43..30 N

Course	Dist	Diffr Latd	Latd in	Diffr	Longd	Longd in	Depr	merd Dist
N 82..40 E	143..18		43..30	195	54..22	142 m	40 m

First Day 15th 10mo 1775 the first hard Ruged the Latter
part moderate Wind North to S ward good weather tumbling
Sea Latd in by obsn 43..43 N

Course	Dist	Diffr Latd	Latd in	Diffr	Longd	Longd in	Depr	merd Dist
N 83..12 E	111 m	13 m	43..43	152 m	51..50	110 m	112 m

Second day 16th 10 m°. 1775 the first part the wind at WSW
good weather Latter part Wind at SW and small at 8 m
Sounded had 35 fath water on the Grand Bank had
poor obs. Latte in 43=50 N

Course	Diff	Diff Latd	Latd in	Diff	Longd	Longd in	Depe	Diff
N 85=50 E	98 m	7 m	43=50	135 m		49=35 m	98 m E	610 m

Third Day 17th 10 m°. 1775 first part Calm good Weather at 2 m
small breeze at SE had 46 fath water the Wind Starts
to Eward good Weather Latter part the Wind
at East blows fresh Cloudy Dirty weather
at 10 how too under Rfd Foresail head to N ward
Saw 2 ships suppose are Lying too on the Bank

Course	Diff	Diffs	Latd	Latd in	Diffs	Longd	Longd in	Dens	Diff
N 7=50 E	54 m	54 m		44=44 N	10 m		49=25 W	7 m E	617 m

Fourth Day 18th 10 m°. 1775 the first part hugd the Wind
to the E ward at Night the Wind dies away Calm at 8 m
small Breeze at SW made Sail Latter part at 6 am
Calm at 8 small breeze to the S ward good weather
Large swell from the S ward had 36 fath water ketchd
plenty Codfish Latd in by good obs. 45=22 N

Course	Diff	Diffs	Latd	Latd in	Diffs	Longd	Longd in	Depe	Diff
N 23 E	41	38 m		45=22 m N	22		49=3 m	16 m E	633 m

Fifth Day 19th 10 m°. 1775 the first part the Wind at S ward
small breeze good weather at 6 am Wind Starts to E ward thick
foggy Latter part Dirty Weather Wind at SE blows fresh rains hard
aft 3 am wind Starts to S ward dies thick fog so Ends the
Day

Course	Diff	Diffs	Latd	Latd in	Diffs	Longd	Longd in	Dens	mrd	Diff
N 32=30 m E	55 m	47 m		46=10 m N	42		48=21 m W	30 m E		663 m E

Sixth Day 20th 10 m°. 1775 the first part Wind at south small breeze
and foggy Dirty Weather at Night the Wind to E ward sometimes
Calm Latter part at 4 am the Wind breezes to N ward heard
SE Clears Saw one Sail standing to westward Latd in
By good obs. 46=28 N

Course	Diff	Diffs	Latd	Latd in	Diffs	Longd	Longd in	Depe	mrd	Diff
N 67 E	47 m	18 m		46=28	62 m E		47=19 W	43 m E		706 m

Seventh Day 21th 10 mo 1775 the first part the wind
to N ward good weather at Night the wind starts to the
NE blows fresh hald sails had 60 fath water at 12 indd
We went off the Bank Latter part the wind moderate
a Very Bad Sea from the NE this morning Saw Sail to
windard standing to E ward had a good obsr Lattd in
45=51 N

Course	Dist	Diff	Lattd	Lattd in	Diff Longd	Longd in	Longd dia	Dens	mrd Diff
S60°E	74 m	37 ms		45=51 N	77 m E	45 47	64 m E	770 m E	

First Day 22th 10 mo 1775 the first part the wind at NE
good weather a Very Large Bad Swell from the NE at Night
Blows fresh Caried Short Sail all Night the Latter part
Ruged had blew water the wind Varies from NE & N
to ENE Lattd in by obsr 45=30 N

Course	Dist	Diff	Lattd	Lattd in	Diff Longh	Longd in	Dens	mrd Diff
S66°E	5?	71 m		45=30	69 m E	44=38 W	48 E	818 m

Second Day 23th 10 mo 1775 the first part the wind to E ward
Ruged Carried short Sail Laid up SE by Compass the
Latter part the Same had an obsr Lattd in 44=39 N

Course	Dist	Diff	Lattd	Lattd in	Diff Longh	Longd in	Dens	mrd Diff
S41=30 E	68 m	51 E	44=39 N		69 m E	43=34 W	45 m E	858 m E

Third Day 24th 10 mo 1775 the first part the Wind at NE by N
Ruged Set up Shrouds the Wind Starts to N ward at Night
blows fresh Short Sail at 12 hove too under Frs Latter part
blows hard Very Squaley at 8 am kept her away ESE Wind at
North had a good obsr Lattd in 44:30 North

Course	Dist	Diff	Lattd	Lattd in	Diff Longd	Longd in	Dens	mrd Diff
S59=E E	61 m	9 m	44=30 N		67 m E	42=27 W	48 E	906

Fourth Day 25th 10 mo 1775 first part the Wind at NNE Varies
Short Sail at Night the Weather brakes Set Topd
sails and mainsail the Latter part Something
Squaley the Wind at North in the morning made
hole Sail the Weather clear Lattd in 44=27 N

Course	Dist	Diff	Lattd	Lattd in	Diff Longd	Longd in	Dens	mrd Diff
S88°E	105 m	3 m	44=27		148 m	39=59	105	1011

Fifth Day 26th 10 m° 1775 the first part Wind
at N.N.W good weather and fine breaze the
Latter part good weather Wind dies Latt in
by Obser: 44=46 N —

Course	Diff	Diff: Lattd	Lat in	Diff: Longd	Longd in	Depr	m.r.d Diff
N 51 E	127 m	80 m	44=46 N	176 m E	37: 3 m	126 E	113 7 E

Sixth Day 27th 10 m° 1775 the first part good weather
the Wind at Wtward Small and Variable
Latter part good weather the Wind to the N:ward
Smoth Sea Very good weather had No obser. —

Course	Diff	Diff: Lattd	Lattd in	Diff: Longd	Longd in	Depr	m.r.d Diff
N 73 =10 E	63 m	18 m N	45=5 m N	85 m E	35=38 m	60 E	110 7

Seventh Day 28th 10 m° 1775 the first part good weather
Small Wind to the N:ward Latter part same Clear Weath
Latt in by obser 45=11 N —

Course	Diff	Diff: Lattd	Lattd in	Diff: Longd	Longd in	Depr	m.r.d Diff
S 81 =30 E	41 m 6 m	N 45: 11 N	5 m	34=42 m	40=8	—	123 7 E

First Day 29th 10 m° 1775 the first part good weather
Small wind at W:ward Smoth Sea Latter part same
Lattd in by obser 45=46 m N

Course	Diff	Diff: Lattd	Lattd in	Diff: Longd	Longd in	Depr	m.r.d Diff
N 58 E	66 m	35	45=46	80 m E	33=22 m	56 m E	127 7 E

Second Day 30th 10 m° 1775 the first part good weather
good breaze of Wind at SW Latter part the Wind
freshes

Course	Diff	Diff: Lattd	Lattd in	Diff: Longd	Longd in	Depr	m.r.d Diff
N 63 =13 E	133 m	59	46=45	172 m E	30=30 m	120 E	141 3 E

Third Day 31th 10 m° 1775 the first part the Wind blows fresh at
W.S.W Latter part the Wind at N W Large Sea good
Weather Lattd in 47=30 N —

Course	Diff	Diff: Lattd	Lattd in	Diff: Longd	Longd in	Depr	m.r.d Diff
N 74 =50 E	150 m	45	47:30	209 E	27=1 m	143 m E	155 6

Seventh Day 11th 11 mo 1775 the first part
the Wind at SSE Rugged at Night hauls to S.ward
and Westward thick weather Latter part the
Wind hauls to West thick Dirty weather at
4 am Sounded got ground had 80 fath water
good Breese Wind at 7 am had 75 fath
fine Black & white Sand
grey sand
Saw a Sail head Standing to S.ward No obser

Course	Dist	Diff	Latd	Latd in	Diff	Longd	Longdin	Depr	mrd Diff
N82=15S	83 m		11 N	49=45 N	127 m	10=45		878	21 96 E

First Day 12th 11 mo 1775 the first part the Wind at Westward
thick weather Steard SE¼E by Compass Spoke with a
Sloop from malaga bound to Essex kent Company
with her at 5 Clock pm Sounded 70 fathoms clear fine
Sand with owes after Steard SE by S Latter part
Wind at WSW blows fresh at 3 am Sounded had 45 fa
yellow Sand & Shels Steard E by S Judge we was abrest
with Silly Islands at 10 Sounded had 45 fath yellow
Sand and yellow Shels at mid Clears had a good obser
Latd in 49=50 N Saw the Lizard bearing N E by E
4 Leagues Dist Saw Sundry Sail Vessels

Course	Dist	Diff	Latd	Latd in	Diff	Longd	Longdin	Depr	mrd Diff
N87=30E			5 N	49=50 N	174	7=5.15		112	230 E

Second Day 13th 11 mo 1775 the above days Work alow the
Vessell to be 12 m Sth by W from the Lizard which is E=2
to Westward of the Vessell at 2 pm was abrest of the Lizard
at 4 the Lizard bore WN W ¼ 4½ Leagues Dist our compass
Suppose to have 2 points Variation Steard E by S Southerly
Wind at SW at 6 am Steard E ½ E till 12 after that
E by S blows fresh thick Sea head Latter part rugged
Rains had Saw Sundry Sail Standing up Chanell
at 8 am Clears very good weather wind at West Saw the
Land about 4 Leagues Dist Stood in Shore at mid the
middle of the Isle of wight bow E by N 5 Leags had a good obser
Latd 50=35 N

Course	Dist	Diff	Latd	Latd in	Diff	Longd	Longdin	Depr	mrd Diff
E b E	166 m		45 N	50=35 N	25 E	8=45 W	160 E	246 E	

Third Day 14th 11 mo 1775 the first part good Weather
the Wind to W.ard at 6 p.m. was abreest with the
East End of the oile of white at 2 p.m. was
abreest with beache head at 8 a.m. was abreest
with Dungenest the Wind Blew Very hard Stood
in for Dover to End the Day

Fourth Day 15th 11 mo 1775 the first part blows
Very hard at N.W. at 2 p.m. took a pilot of
at Dover went into the Downs Lay there
all Night in the morning hove up the
Wind Small Stood to N.ward
the 20th arived at London

London 4th april 1776 this Day took pilot
onboard to goe Down the River the Wind
Scant Came too in Church hold
the 5th got under way Wind to N.ward pilot
Run the Vessell a Shore oppisett Dedford
on the top of the tide hired Liters &c.
the 6th took out Some of our Cargo aft and
got Liters under our Stern at 4 Clock in afternoon got off went Down to Black wall
the 7th at 6 Clock got under way the tide
far Spent Run aground in Shool Reach
at 4 Clock got Down to Graves End got my
Cockets took of Pasenger got some fresh meat
and futtuck Chain mended
the 8th at 5 Clock got under way Wind Small Stood Down
the River Wind Breefs to Northward the after
noon Very Squaley at 8 Clock got into Downs
Sot pilot Shore Stood on prity good Weather
the 9th the Wind to N N E good Weather at Night was
by the Isle of white Wind to E ward
the 10 in the morning was up with the Start the afternoon
of plymouth the Wind Small & Variable had Small Wind
to South ward at 9 p.m. breefs to N ward

Fourth Day 1th 11 m.o 1775 the first part the wind to th
N.ward good Breaze in the Night Squaley Latter par
good weather wind at Night saw Moon to Windard stand
to S.ward Latd in 48 - 17 m.o N

Course	Dist	Diff. Latd	Latd in	Diff. Longd	Longd in	Depst	m.rd	Dist
N67-58 E	124	47 m. N	48-17 m N	170 m E	24-11 m	118 E		167

Fifth Day 2th 11 m.o 1775 the first part the wind to N.ward
Squaley at 4 p.m spoke with Cap.t Brown of som
New york Latter part moderate but somthing Squaley
Smooth Sea Latd in by obser.t 48 = 40 m N

Course	Dist	Diff. Latd	Latd in	Diff. Longd	Longd in	Depst	m.rd	Dist
N 79 E	120 m	23 m N	48-40 m N	180 E	21-11 m W	119 E		

Sixth Day 11 m.o 3th 1775 the first part good weather wind as
N.ward Latter part the wind at South blows fresh Cloud
at m.rd Sun Broke out Latd in by poor obser 49 = 20 N

Course	Dist	Diff. Latd	Latd in	Diff. Longd	Longd in	Depst	m.rd	Dist
N 62-45 E	78 m	40 m N	49 = 20 N	118 m E	19 = 13 m	78 E		1868

Seventh Day 4 th 11 m.o 1775 the first part the wind a
South Blows fresh Durty weather at 8 p.m the wind
Dies Shifts to Westard Small Breaze Latter part Wind
Shifts to S.ward very flattering and Small at 6 am
the Wind at SB Clear and pleasent Latd in 49 = 55

Course	Dist	Diff. Latd	Latd in	Diff. Longd	Longd in	Depst	m.rd	Dist
N 52 E	57 m	35 m N	49 = 55 N	69 m E	18 = 4 m	45 E		1915

First Day 5 th 11 m.o 1775 the first part the wind
at SB Small Breaze at 6 p.m the wind breazes
Looked very Durty Brought too under Lttmost
sail blows fresh Latter part Rugd Weather the
Wind at SSE Rains hard at 12 p.m Laid about
under forsail No observation

Course	Dist	Diff. Latd	Latd in	Diff. Longd	Longd in	Depst	m.rd	Dist
N 7 E W	33	32 N	50 = 27 N	6 W	18 = 10 m	4 W	1909	

cond Day 6th 11m² 1775 the first part the Wind
at ESE blows fresh huged Laid to the Swarderses
Forasail Rains Latter part huged the Wind Starts
to S by N Clears Lattd in 49=54 N

Course	Diff	Diff¹ Lattd	Lattd in	Diff¹ Longtd	Longtd in	Dept.	m² Diff
SW	36m	35.1	49=54 N	21m W	18=31m 14 W		1893

Third Day 7th 11m² 1775 the first part the Wind to E ward
huged, Weather caried Double hefd m² do foretopsail
and forefail & fore Stasail stood to Sward Latter part
moderates at 8 am whole Sail the Wind Starts to N E by
Clears had good obserᵈ. Lattd in 49=6 N

Course	Diff	Diff¹ Lattd	Lattd in	Diff¹ Longtd	Longtd in	Dept.	m² Diff
SE	51	48m 1	49=6 N	30m S	18=10m² S of		1923

Fourth Day 8th 11m² 1775 the first part good Weather
a bad Sea from the E ward the Wind Small Latter
part fine Weather the Wind at North Sot topgalent
Sail Lattd in by a good obserᵈ. 48=50 N Saw one Sail

Course	Diff	Diff¹ Lattd	Lattd in	Diff¹ Longtd	Longtd in	Dept.	m² Diff
N 30 S	78m	16 m S	49=50	108m S	16=13m	S 1 E	1934

Fifth Day 9th 11m² 1775 the first part good Weather
Wind at N ward Latter part from 2 am to 10 Calm Wind
Breases at SE good Weather Lattd in by poor obser 49=1 N

Course	Diff	Diff¹ Lattd	Lattd in	Diff¹ Longtd	Longtd in	Dept.	m² Diff
N 78 d 5 E	57m	11m N	49=1 N	85	14=48m S	N m E	204

Sixth Day 10th 11m² 1775 the first part good Wea
Wind to E ward Latter part good weather wind
Breases Cloudy after 6 am the Wind blows fresh
Starts to E ward No obser

Course	Diff	Diff¹ Lattd	Lattd in	Diff¹ Longtd	Longtd in	Dept.	m² Diff
N 86 d E	81m	33m N	49=34 N	112 S	12=56m	74	214

5.

A Jornal of an intended Voyage From England
and by Gods premonition Bound to Halifax
on the Brigt Joseph & Judeth John Howland
Master &c —

Thirsday 11th 4 mo 1776 the first part good
Weather Wind Small and variable at 7 pm fine
Breese to N ward was about 7 or 8 Leagues from
the Land Steard West by Compass at 12 at Night
the Lizard Lights bore NNW by Compass and at
2 Clock North about 5 Leagues Dist from which
I take my Departer Lizard in Latd 50 Longd 5=14
Wind at NE Latt in By good obser 49=26 North

Course	Dist	Diff Latd	Latt in	Diff Longd	Longd in	Deps	Mrd Dist
S43=50W	52	34 m 1	49=26N	60 mc	6=14W	39 w	39 w

Sixth Day 12th 4 mo 1776 the first part good weather
Wind at NE Latter part good weather Wind at SWB
Latt in by good obser 48=43 N —

Course	Dist	Diff Latd	Latt in	Diff Longd	Longd in	Dens	Mrd Dist
S66W	106	43	48=43	147	8=41	97	131

Seventh Day 13th 4 mo 1776 the first part good Weath
fine Breese at NNE Latter part good Weather
Small breese at West at 8 am Calm No obser

Course	Dist	Diff Latd	Latt in	Diff Longd	Longd in	Dens	Mrd Dist
NbyS	57	17 m 1	48=26N	84 m W	10=5 W	55 w	191

First Day 14th 4 mo 1776 the first part Weather Wind Sma
and at Wesard Latter part good weather but Clou
Wind hols to Sward breses vs offs Saw Sundry
Sail Standing to Eastward

Course	Dist	Diff Latd	Latt in	Diff Longd	Longd in	Dens	Mrd Dist
West	61	0 N	48=26N	94 m W	11=41W	6 w	25 w

Second Day 15 4m⁰ 1776 the first part good
Weather Wind at NW Latter part good Weather
Smooth Sea Wind at NB Latt in by good
Obsr 48-22 N

Course	Dist	Diff	Latt	Latt in	Dept	Longd	Long in	Depr	merid Dist
S86W	116	4m		48-22 N	174m		14=36 W	116 W	368 W

Third Day 16th 4m⁰ 1776 the first part good Weather
but Cloudy in the Evening Lookd Durty handed
all the small Sails Latter part Wind hauls
to SW at 4 am wind shifts to the Nward
very sudingly blows fresh a very bad Sea
Carried short Sail Clouds breaks had an
Obsr Latt in 47=39 N Steard W by S from 4 am
Variation Compass ½ W ¾

Course	Dist	Diff	Latt	Latt in	Diff	Longd	Longd in	Depr	merid Dist
S68=30 W	119m	43m S		47=39 N	168		19=19 W	110 W	478 W

Fourth Day 17th 4m⁰ 1776 the first part Squaley Wind at Nbyn
bad Sea Wind hauls to Wward the Latter part Squaley
Wind at WNW flying Clouds Latt in by obsr 46=20 N

Course	Dist	Diff	Latt	Latt in	Diff	Longd	Longd in	Depr	merid Dist
S21W	82m	79		46.20	43 W		18=2 W	30 W	508 W

Fifth Day 18th 4m⁰ 1776 the first part wind at NWbyN
Squaley Latter part good Weather Wind small and
at Wward Latt in by good obsr 44=50 N

Course	Dist	Diff	Latt	Latt in	Diff	Longd	Longd in	Depr	merid Dist
NbyNW	84m	80m		45=00	34 W		18=36 W	14 W	532 W

Sixth Day 19th 4m⁰ 1776 the first part good Weather
Wind small starts to Northard Laid up Wbys
Latter part good Weather Jumbling Swell from Nward
Wind at North Latt in by obsr 44=31 N

Course	Dist	Diff	Latt	Latt in	Diff	Longd	Longd in	Depr	merid Dist
S64W	66m	29m S		44=31 N	85		20=1 W	60 W	598 W

Seventy [?] Day 20th 4 mo 1776 the first part good
Weather Wind Northard Latter part good weath[er]
Wind Small & Variable Latd in 44=5 North

Course	Diff	Diff. Latd	Latd in	Diff.	Longtd	Longd in	Dep.t	m.r.d Diff
N: 54 82 m	26 m	44.5 N	158 m W	27.49 W	78 W	620 m		

First Day 21th 4 m 1776 the first part good weath[er]
Wind at NbW Small Breeze Latter part almost
Calm Latd in by Obs.n 44 N

Course	Diff	Diff.	Latd	Latd in	Diff.	Longtd	Longd in	Dep.r	m.r.d Diff
18 W	36 m	5 ms	44 N	50 m W	22.39 W	36 m		706	

Second Day 22th 1776 the first part good Weather
Wind Very Small some times Calm Latter part
Same

Course	Diff	Diff.	Latd	Latd in	Diff.	Longtd	Longd in	Dep.r	m.r.d Diff
S.75 W	36	9 ms	43.51 N	48 W	23.27 W	35 m		741	

Thirsday 23th 4 m 1776 the first part good weath[er]
and Gentle Breeze at SE Saw Some part of bills
and other fowls for Several Days back and Plenty
Bank Squall & and other Spews in water Latter
part the Weather Very fine Small Wind to Swa
had green water Looked Very much Like Sound-
ings had a Very bad Jumblen Swall from ward
Saw Sandys Tail & Landing to Ewward Latd
in by Obs.n 43=47 N

Course	Diff	Diff.	Latd	Latd in	Diff.	Longtd	Longd in	Dep.r	m.r.d Diff
S 63.30 W	63	4 ms	43.41	88	24.55 W	63 W	804		

Fourth Day 24th 4 m 1776 the first part Calm at
8 pm a Small Breeze to Ewward Very bad Sea from
Westward Latter part Wind at NE fresh breeze
Bad Sea head Latd in by obs.n 43=47 N

Course	Diff	Diff.	Latd	Latd in	Diff.	Longtd	Longd in	Dep.r	m.r.d Diff
West 80 m	0	43.47	111 m	26.46 W	80 W	884			

Fifth Day 25th 4th 1776 the first part
the Wind at NE fresh Breaze at 6 am
Dies holls to Eastward Latter part good
Weather Aysall Breaze to E:ward Latd in
43=47. North

Course	Dist	Diff Latd	Latd in	Diff Longd	Longd in	Depr	Mrd Dist
West	101	. 0	43=47 N	140	29=06	101 W	98 S W

Sixth Day 26th 4th 1776 the first part good
Weather Wind to Southard Latter part fresh Breaze
at NW Jumlin Sea from WNW Latd in by
Obsr 44 North

Course	Dist	Diff Latd	Latd in	Diff Longd	Longd in	Depr	Mrd Dist
N84 W	126	13 N	44 N	174 W	32 W	125 W	110 W

Seventh Day 27th 4th 1776 the first part the Wind
at SSW Blows fresh Bad Sea from Westard Reafd Sails
Vessell made som considerable Water at 12 at Night
the Wind shift Sudenly to the NNE Latter part
fine Wind Southing Driskey Wind halls to NE
Latd in By obsr 44-5 North

Course	Dist	Diff Latd	Latd in	Diff Longd	Longd in	Depr	Mrd Dist
N88 W	194	5	44-5	180	35 W	129 W	1239 W

First Day 28th 4th 1776 the first part the Wind at NE
good Breaze Latter part Wind dies at 4 am Breazes
to SSW good Weather Latd in 43=55 North

Course	Dist	Diff Latd	Latd in	Diff Longd	Longd in	Depr	Mrd Dist
S85 W	115	10	43=55	160	37=40 W	115 W	135 W

Second Day 29th 4th 1776 the first part Wind to SSW
good Breaze in the Evening Clouds up blows fresh
at 12 at Night Very durty Weather under short Sail
Latter part blows stiff Rains hard at 6 am Wind
shift to NNW blows fresh bad Sea Very Rugid

Course	Dist	Diff Latd	Latd in	Diff Longd	Longd in	Depr	Mrd Dist
S85=30 W	110	18	43=37 N	150	40=16 W	100	145 W

Third Day 30th 4mo 1776 the first part Wind to Northard
Blows fresh at Night Remainders Courses very bad
Sea going ship several very heavy Seas call sea
Latter part hugied wind hals to NEbyE got single
reef topsails & mainsail Latd in by obser 42=50 North

Course	Dist	Diff Latd	Latd	Diff Longd	Longd in	De N	Diff
N57=30W	80m	47m 1	42=56N	86	41=36	63	15174

Fourth Day 1th 5mo 1776 the first part Wind
to NNE good Breaze Bad Sea a head Latter
part Wind at NEbyE good weather and good
Breaze Latd in by obser 42=50 N

Course	Dist	Diff Latd	Latd in	Diff Longd	Longd in	De N	Diff
West	126m	0	42=50N	175W	44=31W	176W	1743

Fifth Day 2th 5mo 1776 the first part the Wind
at ENE good Breaze Latter part Wind hals
to Sward and Dise very fine Weather Latd
in by obser 43=5 N

Course	Dist	Diff Latd	Latd in	Diff Longd	Longd in	De N	Diff
N84W	138m	15	43=5	190m	47=41W	138W	1881

Sixth Day 3th 5mo 1776 the first part very fine
Weather Wind at SSW Latter part good weather
Wind to NNE had very greene water Saw a boundence
of fowls & Ice Sounded got No ground Latd in
By good obser 43=35 North

Course	Dist	Diff Latd	Latd in	Diff Longd	Longd in	Depar	Diff
N64=30W	113	30m	43=35N	150m W	50=11W	109W	1990h

Seventh Day 4th 5mo 1776 the first part very
thick fog Saw a greate plenty of fowls Saw whales
had very greene water Sounded got No ground
at 12 at Night found had 30 fath fine Black & White
Sand at 2 had 40 fath at 6 65 fath at 8 No bottom
Saw much small Ice at 10am Wind Shifted to NNW
stood to Westard fog clears very cold and orbunted

Course	Dist	Diff Latd	Latd in	Diff Longd	Longd in	Depar	Diff
S78=15W	130m	25m	43=10	176W	53=5W	127W	2117W

First Day 5th 5 mo 1776 the first part Wind
at NE good Weather Latter part Calm from
12 to 6 Wind Breases at WSW Cloudy Saw abundance
of Bird Cloudy _____

Course	Dist	Diff Latt	Latt in	Diff Longd	Longd in	Dep'r	mr Dist
West	44 m	0	43=10	61 m W	54 5 W	44 m W	2161 m W

Second Day 6th 5 mo 1776 the first part good Weather
the Wind WSW at 8 pm Wind hall to NW Went
about Stood to Southard Latter part Calm till 9 am
Wind breases to Southard Clear and plesent Latt
in By good obs 43=15 N _____

Course	Dist	Diff Latt	Latt in	Diff Longd	Longd in	Dep'r	mr Dist
N 81.30 W	34	5 m N	43-15	47 m	54 55 m W	34 m	2195 m W

Third Day 7th 5 mo 1776 the first part Clouds un
Wind hall to NWbyW Very Chilley at 8 pm West
about at 10 Wind Halls to NW Latter part good Weather
but Cold flying Clouds Had a good obs Latt in 43=15 N

Course	Dist	Diff Latt	Latt in	Diff Longd	Longd in	Dep'r	mr Dist
West	67 m	0	43-15 N	94 m	56 29 W	67 W	2262 W

Fourth Day 8th 5 mo 1776 the first part good Weather
Wind at N by W Latter part good Weather Wind Starts
to N by E Clear but Cold Latt in by good obs 42=45 N

Course	Dist	Diff Latt	Latt in	Diff Longd	Longd in	Dep'r	mr Dist
S 74 W	110 m	30 m S	42.45 N	145 m W	58-54 W	106 W	2368 W

Fifth Day 9th 5 mo 1776 the first part good
Weather Wind at NNE in the Evening Wind
Starts to Eastard Steare NW by N Latter part
Wind to Southard good Breaše Set all Sail
Cloudy at more breakes had a good obs Latt
in 43 25 N

Course	Dist	Diff Latt	Latt in	Diff Longd	Longd in	Dep'r	Dist
N 59 W	78	40 m	43.25 N	92	60-26 W	67	2435 W

Sixth Day 10 th 5 mo 1776 the first part very
heavy durty weather Wind at SW bys bloes
fresh at 4 pm Sounded had 30 fathoms water
very fogey had fine gray & yellow Sand at
4 had 17 fath went about Wind hals
to West Stood of South at 8 had ?? fath
at 2 in morning went about stood in North
at Sholand out the water gradually at wird was
in 7 fathoms heard the hunt of the Shore
very thick fog went about Stood of Wind at
NSW we had fine grey and yellow Sand

Course	Diff	Diff Latt	Latt in	Diff Longtd	Longtd in	Dept Mr Dift
N55=30W	35 20	43.48	46 22	61=6W	29 W	464 W

Seventh Day 11 th 5 mo 1776 the first part wind at West an
very thick fog Stood of to Southard at Night Lay
under fore Sail Bloes had bad Sea at mo 12 Wore Stood
to ENE & NE till 8 am moderates hald up North Clears
had 30 fath water had a good obs Latt in 43 45 N

Course	Diff	Diff	Latt	Latt in	Diff	Longtd	Longtd in	Dept Diff
East	42 m	0 m		43-45 N	209	60:6 W		42 W

Eighth Day 12 th 5 mo 1776 the first part good weather
Clear fog Stood NNW had 25 fath water Saw Brigt
to the Southard Standing after us fired three guns Stood
to Northard till 8 Went about Wind at SW Laid up
SSE Judged the Shoal water we had was off the
Iland of Sables very fogey Latter part at
Wind hals to West at 4 am thunders som Rain
at 10 fog Clears good weather Wind at NW had
good obs Latt in 43=30 N

Course	Diff	Diff	Latt	Latt in	Diff	Longd	Longd in	Dept Diff
South	15 m	15 m		43-30 N	0	60-6 W	0 m	42 W

Ninth Day 13 th 5 mo 1776 the first part good weather
Wind at Nbys Hald hoying to Eward Latter part wind
at WSW good weather Latt in by good obs 43-45 N

Course	Diff	Diff	Latt	Latt in	Diff	Longd	Longd in	Dept Diff
N67W	15 m	15 m		43-45 N	14 m	61-40 W	68 W	470 W

Third Day 14th 5 mo 1776 the first part
good weather Wind at W S W Latter part
Wind Blows fresh at 4 am Saw 2 Sail Ships
Standing to Eward at 9 Saw the Land Stood
in for it at 11 am Closst in with Land went in
about Stood of Latto in by good obser 44 45 N

Course	Dist	Diff Latd	Latd in	Diff	Long	Longd in	Dep	Dist
N 47 W	90 m	60 m N	44 45 N	92 m	63 = 12 W	65 W	2555 L

Fourth Day 15th 5 mo 1776 the first part Wind
at S W thick foggy Latter part much the
Same

16 th Day the fog ghins Wind at Westard
Latter part good weather Stood in for the
Land fitchd in to East ard of Lishims harbour
Wind very flattering Cloudy

17 th the first part good weather very
flattering at Night Wind Breasd at
N E Latter part good weather at
4 in morning Saw Sambro Lite house
to Luard got into halefax about 12 th
the Whole fleet and army from Boston
is hear &

A Jornal of a passage from Nova Scotia and
By Gods Permition Bound to West Indies
in the Brigt. Joseph & Judith John Howland Master

Fourth Day 19th 6 mo. 1776 the first part Wind at SW fogey
at 2 pm Caim out of Canso Harbour Bound to Sea Steard
SE bad Sea Head good Breese Wind at Night the fog
Clears Canso Harbour in Latd 45:30 N Longtd 59-30 W
Latter part Wind Small & Variable Clear Weather
Latd in by good obsr. 44=50 North ———

Course	Diff	Diff Latd	Latd in	Diff Longtd	Longd in	Depr	mrd Diff
SSE	75 m	30 m	44=50 N	97 m E	57.38 W	68 m E	68 m E

Fifth Day 20th 6 mo 1776 the first part Small
Wind to SSW and fog at Night Calm Latter
part Small Wind to Eastard Rains hard
at mro Setts in thick fog almost Calm ——

Course	Diff	Diff Latd	Latd in	Diff Longd	Longd in	Depr	mrd Diff
SW E	27 m	21 S	44=29 N	85 m E	57=28 W	188	866

Sixth Day 21th 6 mo 1776 the first part thick Dusty
Weather and Calm Latter part Wind Breeses
at NE good Breese Continues fogey Had
a poor obsr Latd in 43-34 N ——

Course	Diff	Diff Latd	Latd in	Diff Longd	Longd in	Depr	mrd Diff
SW E	67 m	55	43=34	40 m	56:45	30 E	116 E

Seventh Day 22th 6 mo 1776 the first part Wind
at NE good Breese Cloudy Latter part Cloudy
at mro Son Broke out Had an obsr Latd
in 40-55 N ——

Course	Diff	Diff Latd	Latd in	Diff Longd	Longd in	Depr	Diff
SE	160	159 m S	40=55 N	34 E	56-11 W	25 m E	141 E

First Day 23th 6 mo. 1746 the first part good
weather but bad sea in the gig. Latter part
good weather Wind at NE by E Latd in by good
obsn. 38:50 N find we have had a strong
Northerly & Easterly Current ———

Course	Dist	Diff Latd	Latd in	Diff Longd	Longd in	Depr	mrd Diff
19°.8	126 m	125 m S	38:50 m N	25 m E	55°-46 W	19 m E	160 m E

Second Day 24th 1746 the first part good weather
and the wind at NE Latter part Same
Latd in by good obsn. 36:49 North ———

Course	Dist	Diff Latd	Latd in	Diff Longd	Longd in	Depr	mrd Diff
South	121 m	121 m S	36:49	0	55°-46 W	0	160 E

Third Day 25th 6 mo. 1746 the first part good weather
Wind at ENE Latter part Same Latd in by
obsn. 35-4 North ——————

Course	Dist	Diff Latd	Latd in	Diff Longd	Longd in	Depr	mrd Diff
S6 W	108 m	105 m S	35-4 m	14 m W	56 W	11 W	149-8

Fourth Day 26th 6 mo. 1746 the first part good weather
from 4 to 8 Calm
Small Wind at SE & SS Latter part & Same Wind
NE obsn ———— Wind at SE

Course	Dist	Diff Latd	Latd in	Diff Longd	Longd in	Depr	mrd Diff
S6 W	85 m	84 S	33°-40 N	11 m W	56:11 W	9 W	140 E

Fifth Day 27th 6 mo. 1746 the first part good weather
Wind at ESE Latter part Same Latd in 32 N

Course	Dist	Diff Latd	Latd in	Diff Longd	Longd in	Depr	mrd Diff
S6 W	100 m	100 S	32 N	13 W	56-24 W	11 W	139

Sixth Day 28th 6 mo. 1746 the first part good weather
Wind to Eastward Latter part Same
Latd in by good obsn. 30-47 N ———

Course	Dist	Diff Latd	Latd in	Diff Longd	Longd in	Depr	mrd Diff
S6 E	74 m	73 m S	30-47 N	8 m E	56-16 W	7 m E	146

Seventh Day 29th 6mo 1776 the first part
good weather wind to Eastward Latter part
Same Latd in 29:17 North ——

Course	Dist	Diff Latt	Lattin	Diff Longd	Longdin	Depr	Dist
S8E	93m	90mS	29:17N	158	56:14W	13S	159E

First part Day 30th 6mo 1776 first part
good weather but something Squaley X
Wind very Variable mostly to Southard & Eward
Latter part something Squaley Wind small
and Variable Latd in 28-34 N ——

Course	Dist	Diff Latt	Lattin	Diff Longd	Longdin	Depr	Dist
S13W	44m	43mS	28-34	11mW	56:12W	10W	149E

Second Day 1th 7mo 1776 the first part
Wind to Southard Latter part wind very small
and Variable from 4 to 10 Calm Lattdin
27-55 N

Course	Dist	Diff Latt	Lattdin	Diff	Longd	Longdin	Depr	Dist
S37½W	49m	39S	27:55N	31W		56:46W	30W	119E

Third Day 2th 7mo 1776 the first part good
weather small wind to Southard Stood to the W
till 8mo Went about Latter part Same ——

Course	Dist	Diff Latt	Lattdin	Diff	Longd	Longdin	Depr	Dist
S30E	26m	25S	27:30W	6mE		56:40W	5E	124E

Fourth Day 3th 7mo 1776 the first part good
weather small breeze of wind to Southard but
Variable Latter part Same Lattdin by obsn
27-14 North ——

Course	Dist	Diff Latt	Lattdin	Diff	Longd	Longd	Depr	Dist
S8E	32m	16S	27-14	30E		56:10W	7E	151E

Fifth Day 4th 7mo: 1776 the first part
Squaley Wind Variable but moftley
to Southard. Saw Several Worter Spouts
Latter good weather Wind to Southard
Latt in by obsn 26:57 North

Courfe	Dift	Diff: Latt	Latt in	Diff: Longd	Longd in	Dept:	Mert	Dift
South	17m	17m S	26:57N	0m	56:10¼	8m		1578

Sixth Day 5th 7mo 1776 the first part good weather
Small breaze Wind at SSW Latter part Wind
S by E Squaley Latt in By obsn 26:37 North

Courfe	Dift	Diff: Latt	Latt in	Diff: Longd	Longd in	Dept:	Mert	Dift
S37W	20m	26:37N	17m W	56:27W	15 W			1366

Seventh Day 6th 7mo: 1776 the first part
good weather Wind at SW Latter part Wind
at SW by S Saw two Veffells Standing to NE
Spoke with one of them told us She was
from Barbadoes Latt in 25:30 North

Courfe	Dift	Diff: Latt	Latt in	Diff: Longd	Longd in	Dept:	Mert	Dift
S27:30W	75m	67m S	25:30N	39m W	57:6W	35 W		1016

First Day 7th 7mo: 1776 the first part good
weather Wind SE by E Latter part Wind at
ESE Latt in by obsn 24:13 North

Courfe	Dift	Diff: Latt	Latt in	Diff: Longd	Longd in	Dept:	Mert	Dift
S18W	80m	77 S	24:13	28m	57:34W	25 W		768

Second Day 8th 7mo: 1776 the first part
fresh wind at East Latter part Same
Latt in by obsn 22:10 North

Courfe	Dift	Diff: Latt	Latt in	Diff: Longd	Longd in	Dept:	Dift
S6W	124m	123 S	22:10N	18m W	57:52W	16 W	60

Third Day 9th 7mo. 1776 the first part
good Weather Steard South Latter part
Same Latt in by obser. 20=18 North

Course	Dist	Dist Latt	Latt in Dist	Long Long in	Dep[?]	west Dist
South	112m	112m	20:18N	0m 57:5?	0	60 E

Fourth Day 10th 7th mo. 1776 the first good
Weather fresh breese Latter part Same
Steard South Latt in by obser 18=7 N

Course	Dist Dist Latt	Latt in Dist	Long Long in	Dep west Dist
South	131m 131m	18:7N	0m 57:5?	0m 60 E

Fifth Day 11th 7th mo. 1776 the first part
fresh Breese Steard South Latter part
at half after four made the Land a head
which was gaudeloopa Stood Down Long
Shore till 9 am gibd Stood on Over for in
antegua at noone had a good obser 16:43

Course	Dist Dist Latt	Latt in Dist	Long Long in Dep Dist

Sixth Day 4th 10 mo. 1776 at 11 Oclock this morning
Came to Sail in Company St Lucea Bound to
Capt Nickalau [?] 3 sick men onbord
one Very bad Steard NW by N wind at East at
8 Oclock in the Evening was abreast with St pers mark
had Strong windard Current

Seventh Day 5th S at 8 Saw Domineca baring
E by S 4 Leagues Dist, South part Gaudeloop
Bore East 10 Leagues Saw monserat at
Same time Latt in by obser. 15=15 N
Calm from 8 till 5 at Night then Small
Breese Steard WNW and NW by W

Fift[h] Day 6th wind Verye Small Steard NW Saw
Now Land Latt in by obser 15=35 N
Steard NW wind Still Small and Variable

Second Day 7th wind Small Latt in 16=15 N
Wind Verye Small

Third Day 8th 10 m: oClock the Wind Breaks at 6 am
Hald up NNW at 9 Saw the Land head which
was H Cruze Latt in 17=35 N Steard N W by W
Fourth Day 9th 10 m: at 4 pm made turtoles
at 5 made Beague Steard W by N Saw one man of
war & one tender

fourth Day 9th at 2 am was cloose
above Portodecco Steard WSW at Day Lite
Stood Long Shore at yard was in Latti
17=55 N ¾ at 6 m: was abrest with west
End Saw Saeba baring NW by N had 9 fath
water fine Sandy bottom from 7 to 11 ½ Heard
WNW Small Breese held up NW

Fifth Day 10th at 2 am was brest Saeba
Steard N W by N in morning Saw moono
bareing NW at 11 Saw Cape Samoan baring
W by N about 9 Leages Dist Steard N W by W
Latt in 18=50 North at 5 pm Cape Samavai
bore Sw 9 Leagues good Breese

Sixth Day 11th at 6 am was brest with Cape
Francios good Breese Stood Long Shore
Saw a Sail Standing in for the Land

Seventh Day 12th at 6 am the mount
Critto bore SW 10 Leagues Small wind
Stood in Shore at Same time the Eastermost
Land bore ESE at 11 Wind Breaks at 4 pm
was abrest with the mount 3 Leagues Dist
Small Wind all Night

First Day 13th at 6 oClock Sott Bowers
Died wind Small Saw tetuge bareing W by N
7 Leagues Small wind at 5 pm Buried Sott
in the Evening thundered & Litend very har

Second Day 14th 10 in: 1726 at half after 5 gibd
Hold up for Cape Nicolas mould the
West End of Tidgga bearing South at 6
Saw a Ship to Leward Standing in for
the Land and also Cross our fore foot
Calld her an English man of war at about
half after 9 She Shot up so near as we said
She had No penant Nor No Collers flying Except
a Vein at Each top galent mast head Calld her
a merchantman as we was pasing her Set
our Ensign She Shot up Long Side of us
with in hail hald down her Vein at her main
top galent mast head and Sot her penant &
Enfine and Imediately gave us a Shot from
her Larbord bow which went through
our fortonsail in two plases and come Very
Near takeing of our foretonmast this was
treatment that I Little Expected I orderd the
Vessell hove too She haild and askd where the
Brigt was from and where She was bound
I told him from St Lucia & bound to
Cape Nicolas mould he orderd me to Ly by and
he would Send his Bote on bord When the
Leutenant Cam on bord I told him that
I was Very much Suprisd at the treatment
I had met with he madones No anwer
but after Serching & over halling the papers
Logg Book & Vessell to his Sadiffaction Return
Very precepytately and orderd me to gae about
my Bufiness

First Day 10th m° 1776 at nat Night Cam
to Sail in Cape Nicolas would bound to
through the keys 11th day Wind at NE by N 12th
the Wind at NE Saw Cape made boring South
5 Leagues 13th day Wind blew fresh at NNE
14th Wind same mad Heneauger Spock with
the midston man of War 15th blew fresh
at Night was in with Hereauge Stood
over for passage Wind far to Nward
Did Not fetch the merinoous stood back
16th Day at Night made acklins keys
Stood to Nward 17th Wind at NE by E day
fortains island made a tack to SE at mid
was in Latd 22–46 N

18th Day wind at NE by E Saw Long island
at 9 am Rum key bore West 3 miles
Latd in 23:49 N Saw Wotlings key

19th Day 11 m° 1776 the first part
wind at NE at 2 went about Stood
to ESE till 6 pm at Saw Rum key
wotting key & Little key all at once
at 6 pm Rum key bore SW by S 4 Leagues
which is in Latd 23–45 & Longd 14 50
Latter part blew fresh at ENE very bad
Sharp Sea from Northard Latd in
25:4 N

Courso Dist	Diff Latd	Latd in	Diff Longd	Longdin	Dep Diff
N 22 W 80m	75 N	25–4 N	33 m W	75–28 N 30 W	30

20 Day 11 m° 1776 the first part Ruged wind
at NE by E Latter part wind at NE Rig
Latd in 26=34 N

Courso Dist	Diff Latd	Latd in	Diff Longd	Longdin	Dist
N 23 W 98m	90 m N	26.34	42 m W	76–5 W 38 W	68

21th 11 m:o 1776 the first part fresh wind
at N E Squaley Latter part wind at
E N E at 11 a:m saw a Sail of this ut Latd
in By obser 27=57 North

Course	Dist	Dist	Latd in	Dist	Longd	Longd in	Depr	md Dist
N 24 W	92	83 m/s	27=57 N	42 W	76=47 W	37 W		105 W

22th 11 m:o 1776 the first part Wind at N E by E
and E N E Latter part good weather Latd
in 29=46 North

Course	Dist	Dist	Latd in	Dist	Longd	Longd in	Depr	md Dist
N 15=30 W	111	109 N	29=46 N	34 W	77=11 W	30 W		135 W

23th 11 m:o 1776 the first part good weather wind to
E N E and East Latter wind at East & SE
good weather Latd in 31=2 North

Course	Dist	Dist	Latd in	Dist	Longd	Longd in	Depr	md Dist
N 17 E	79	76 N	31=2 N	27 E	76=54 W	73 E		118

24th 11 m:o 1776 the first part good weather
Wind at S E Steard N E by N at 8 pm met a
very bad head Sea Latter part wind E S E
Steard N E from 8 to 12 at 11 a:m went through
Several Large Rips much gulfweed very bad
Sea Latd in by obser 33=16 North

Course	Dist	Dist	Latd in	Dist	Longd	Longd in	Depr	md Dist
N 34 E	160	134	33=16	103	75=11 W	90 E	-	224

25th 11 m:o 1776 the first part good weather wind
at S E Latter part fine Breeze at South
Latd in by obser 35=30 N

Course	Dist	Dist	Latd in	Dist	Longd	Longd in	Depr	md Dist
N E	190	134	35=30	162 E	72=29	134 E		118 E

26th 11 m:o 1776 the first part good weather Wind at South
Latter part fresh breeze till 6 am wind hold to SW by S
Latd in by obser 38=5 N

Course	Dist	Dist	Latd in	Dist	Longd	Longd in	Depr	md Dist
S E	248	155	38=5	199 E	69=10 W	155 E		258 E

27th 11mo 1776 the first part good weather
wind to South and Saw Innumerable Whales
plenty Latter part wind to Northard very
Ready No Obser this Day

Course	Dist	Diff Latt	Latt in	Diff Longd	Longd in	Dem	Dist
N 38 E	93	73 N	39:18 N	73	68·4 W	578	234

28th 11mo 1776 the first part wind Variable and
Very Dirty weather Latter part wind at Northard
at 4 am Caried away our boom hurt one man
Latt in by obser 40:20 North

Course	Dist	Diff Latt	Latt in	Diff Longd	Longd in	Dep	mrd Dist
N 33 E	73	62	40:20 N	52	67·12	40 E	748

The Rule of Practice

This Rule is of the greatest Use and Service being
the Readiest and Shortest Way of Casting Up most
Sorts of good or merchandise ———————

But it is first Necessary to have the following
Table by Heart

Parts of a shilling and of a pound   Parts of a pound

6 is half a shilling is — — — 1/40				10 = 0 is 1/2
4 — — — — — — — 1/3 — — — 1/60				6 — 8 = 1/3
3 — — — — — — — 1/4 — — — 1/80				5 — 0 — 1/4
2 — — — — — — — 1/6 — — — 1/120				4 — 0 — 1/5
1 1/2 — — — — — — 1/8 — — — 1/160				3 — 4 — 1/6
1 — — — — — — — 1/12 — — — 1/240				2 — 6 — 1/8
				2 — 0 — 1/10
				1 — 8 — 1/12
				1 — 0 — 1/20

You must Change in your mind the Name
of the Species given and Call it so many Sixpences
Shillings groats nenene pounds &c of money as
the Price of one of the given yards pound Hundreds
&c are as in the Example following it Will be How
much comes 426 ———— Sixpences to

Parts of a shilling
6 is 1/2 of 1/

Example
426 ℔ of Sugar at 6 ᵈ ℔
$$\frac{213}{£10:13}$$ answer

Example 3/512 ᵈ Cheese at 4 ᵈ ℔
2 is 1/3 of 1/ $$\frac{170:8}{£8:10=8}$$ answer

Example 246 yds of Ribond
at 3 ᵈ yᵈ 3 is 1/4 of 9/↑246
$$\frac{61:6}{£3-1-6}$$ answer

Example 3/249 Ells of Canvas at 4 1/2 ᵈ Ell: answer
4 is 1/3 of 1/
1/2 is 1/8 of 1/
$$\frac{8\,/\,83}{1\,\,0-4\,1/2}$$
$$\frac{9\,/\,3:4\,1/2}{£\,4\,1/2=13=4\,1/2}$$ answer

Example 254 yds of Cloth
at 1/ 10ᵈ yᵈ £27 answer

Example 3/972 gal. at 6/8
6—8 is 1/3
of a pound   £324 answer

The Rule of Practice &c

Example 426 ℔ at 4/9

6 is ½ of the
2ᵈ Line
3 is ½ of the
6 Line

```
      42 = 13
  4/ 42 = 13
   2/ 10 = 13
      5 - 6 = 6
   £101 = 3 = 6 answer
```

or

```
   426
     4
  1804
   21 3
   10 6 = 6
  202|3 = 6
  101:3 = 6 answer
```

6 is ¼ of the third
Line and 3 is ½ of
the 6 Line

Example 216 Ells at 2ˢ = 3½ pᵈ Ell

3 is ⅛ of the 2ᵈ
Line
½ is ⅙ of the 3ᵈ
Line

```
   2/ 81:2 1 = 12
   8/ 6 : 2 : 14
      0 : 9
   £24 = 15 answer
```

or Thus

```
   216
     2
   432
    54
     9
   495
   £24 - 15 answer
```

3 is ½
½ is ⅙ of the 3 Line

Example 396 gal Brandy at 7/9 pᵈ gal

6 is ⅓ of the
shilling Line
3 ⅓ of 6 Line

```
   39 = 12
   39 = 12
   39 = 12
   19 : 16
    9 = 18
    4 = 19
   £153 = 9 answer
```

or Thus

```
    396
      7
   2772
    198
     99
   3069
   £153 = 9 answer
```

6 is ½ of 1ˢ
3 is ½ of 6

Example 426 ℔ at 10 pᵈ ℔

6 is ⅓ of 1ˢ
4 is ⅓ of 1ˢ

```
    21 3
    14 2
    35|5
   £17 = 15 answer
```

or Thus

```
   426|0|
     35|5
   £17 - 15 answer
```

heave / only 3 places
the Nought at the Rite
hand and Divid by
12 and 20

Example 426 ℔ Copper at 11 pᵈ ℔

```
     426
  12/ 4686
    .39|0 : 6
   £19 - 10 - 6 answer
```

When the Price is 11 Set it Down twice
in the form of multiplycation as in
the Example

Example 942 ℔ of fustick at 11½ pᵈ ℔

```
      942
      471
  12/ 10833
     90 2 = 9
   £45 : 2 = 9 answer
```

for the half penney / Take half of
the Uppermost Line and add them
together and Devide them by 12 as before

Example 596 gal Spirits at 2/ pᵈ gal

```
   £59 - 12 answer
```

The Rule of Practice

Example 444 yds of Cambrick @ 5/9

6 is ½ of the 1 Line   54 = 8
3 is ¼ of the 2 Line   44 = 8
           22 - 4
           11 = 2
           5 - 11
     £127 = 13 answer

Example 548 yard of Broad Cloth @ 12 = 6 p yd

6 is ¼ of   54 - 16
the 2 Line   6
       338 = 16
       13 = 14
    £342 = 16 answer

Example 296 yds of Cloth @ 14

     7
   207 = 4   hear I multiply
         by ? half the given
         price and Double the first
         two and call it shillings

Example 496 gal Carent Water @ 17 p gal

     8
  396 = 16
   24 - 16
  £421 = 12 answer

hear I multiply by 8 because
I cannot take half of 17 so for
the od shiling I work as for
1 p Gal half of it is ? and half
of 9 is 4 10 and 8 is 18

Example 429 Nobles @ 6/8
6/8 is ? of a pound   £143 answer

Example 598 @ 5/
£149 = 10 answer

3d is Example 542 Zeland Dollers @ 3:4
⅙ of a pound   £90 = 6 = 8 answer

Example 246 marks @ 13 : 4

     13
    738
  246
     82
  328 | 0
  £164 answer

or Thus 246
      2
  3 | 492
  £164 answer & proof

13 = 4 is ⅔ of
one pound

Example 829 Ells of Holland @ 8 - 9 p Ell

6 is ¼ of the
two shilling Line   82 : 14
3 is ½ of 6 Line   4
      330 = 16
      20 : 13 = 6
      10 = 6 : 9
   £361 = 16 = 3 answer

or Thus 829
      8
  6616
  413 = 6
  206 - 9
  723 | 6 = 3
  361 = 16 - 3 answer and proof

Supose a Whales Head is 8 feat Long, her Tail as
Long as her head & half as Long as her Body & her
Body as Long as head & Tail both / Demand
the Length of This fish   answer 64 feat

To preform this work I supose her Body to be 24 fea
1st 8 head
    12 ⅟ Length Body & } I find 24 to Leave an Errow of 4
     8 for Length of Tail }
    ——
    28 }
    24 } subtract   too Little Then I supose her
    ——   Body to be 28 feat Long
     4 - Errow
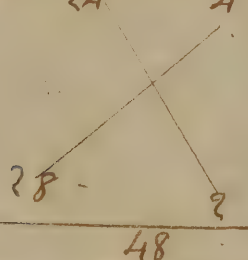
2d: 8 head
    14 ⅟ Length Body & } I find 28 to Leave an Errow of 2 to
     8 for Length of Tail }
    ——   Little Which I work By follesing
    30 } subtract   meathod I multiply the 2th Suposition by the
    28 }   first Errow 4 & the first Suposition 24 by the
    ——   Last Errow 2 and subtract the Produets the
     0 2 - Errow   11 2 Remainder is a Deviding Then I subtract
                24   4 the two Errows for a Devisor which is 2 I find
                         Devided by 2 the Quotient is 32 the Length
    28 -   2   of the Whales Body Consequently the Whole
    ——————————   Whal is 64 feat Long See the Work
         48
    2 / 64 / 32 - Body
              24 - Tail
               8 - head
              ———
              64 Whole Length

If these Supositions of 24 & 28 had been Two much the
Produets must have Been added & the Errows added for a Devisor

If any Quetion is asked in Supition it is Required
To Supose a Number in mind and Supose two Numbers
That Will fall Under the Whole Sum and Work them
By three Errows as above and they Will give the Rite
Number to Work from as Supose for instance I should
Meet a Parson Driving geese to markit I ask him how
many geese have you he says if I had as many more
and half as many more & two geese & half I should have
a score
                      3   50
                       ⟍ ⟋ 10
                        ⟋⟍
                      5   5
                   ————————————
                       15 = 5
    Supose 3   5 / 35 / 7 is the Rite Number So it appears
           3   he had 7 geese for 7 & 7 is 14 & 3 is
           1½
           2½   3½ 17½ & 2½ makes 20
          ——
          10
          10
    Supose 5
           5
           2½
           2½
          ——
          15
          5

Supose two men Bought a grind Stone 20 Inches Diameter one [is] to yuse the Stone till head ground of 1 third part and then the other was to have the other 2 thirds I Demand how much of the Diameter the first D arson shall grind of and likewise how big oves the stone must be when the second Recives it

Sum over on the other side

20
20
3 / 400 / 133 : 33 '5
1 / 266 66 2/3 Substract the Root
2 / 166 : 16 4/16 Left for second man [line]
26 / 1066 2/3 / 4   the first man must grind of 3 4/16 of whole
10 5 1   Diameter which is 1 - 6/16 of an Inch
10 3 2/3   from the Edge D [made?] by the folloing
26 / 1066 / 93   Work find the superfitial area of a
                         sircle whose Diameter is 20 Inches Take one
                         third part of this area from the whole and [the]
                         With the superfitial area of the 16 : 4 the 2 thirds
of of the above mentioned Stone   22 10
                                   32 : 08
20   32 0
22
3 / 440 / 143 : 33   1 / 360 08 / 51 : 5
                                   10 8   4 1
1 / 296 : 67 / 42 : 38   3 : 8   51 5
16   20 40
267   5 is half the Raidus of 20   Superfitial 211 : 15 area,
54   211 : 90 is superfitial   proof Nearly
1   area

So Extract the Square Root the Rule is Dott over every other figar begining at the Rite hand as many Dots as you have So many figures the Root Consists of mind every Time you Dut Down a figure in the Cotient to Dlace the same to the Rite hand of your Devisor

Supose a house Contains 1480 Square feet on the floors I Demand how big Square that house is

feat
1 / 1480 / 38 : 4 answer
68 / 580 / 10
544
764 / 360 0
     365 8
     544

the Laft figure Sot in Cotien
must be Dobled every Time for a
New Devilor in Working out the
graetions as well as before I See
the Work

Supose two men Joyned and bought a grindstone
Between them one bought 2 thirds the one third he that
had the one third was to have it first till he had
ground of his third & then the other was to have it
this stones Diameter was 20 inches the Question is
how much of the Diameter the first Person must
take of and how Big the stone shall be when the
second shall Receive it

20
20

3/400/
/33 - 33⅓
. 100

1/266 66 43/16 4 subtract the root
2/156 100 100 answer for second
22 Person

325/1066/3 328
967 328

17 7/36028/51 44
In proof 10 10 41
308
230 51 461
[205 7 6
210 904

first Person takes of from
the Diameter 3 inches 46
the stone is ground Down from 100
the edge 1 - 98 of an inch
100

To proof this Work take
a Jewele whose Diameter is
20 Inches find the Superfisi
aree & take 2 thirds of that
and see if it agrees with
the Superfitial are of 16 74
100

32
7/440/62 - 6
20 7
6/314 - 3/
proof - 209 4 Nearly agrees
with the other for
Common Work

The Rule of Meafuring Triangles figures or Dimonding

Supofe a Triangle Whofe fide is 9 Inches What
is the Contents fumefife anfwer 35⁴/₁₀ Inches
the Rule to Proform this is multiply the given
fide a B by half the Parpendiculer hight
the Product is the Contents Required

9   o
   ₁₀)8I/8
3   9/₁₀ is half the Parpendiculer hight
27
8 = ₄/₁₀
35 = ₄/₁₀

: or Rumbufs
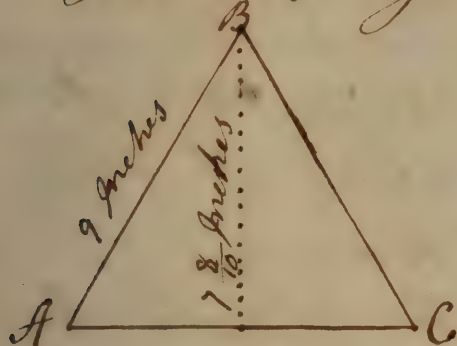
To find the Contents or area of a Dimond:
the Rule is multiply the bace D B by the Parpendicular
Vedth and the ~~Contents~~ Product is the Contents
Required —

Example Supofe a Dimond Whofe bafe fide is
6 Inches and Parpendiculer Vedth is 5 Inches What
is the Contents anfwer 30 Inches or 2½ feats —
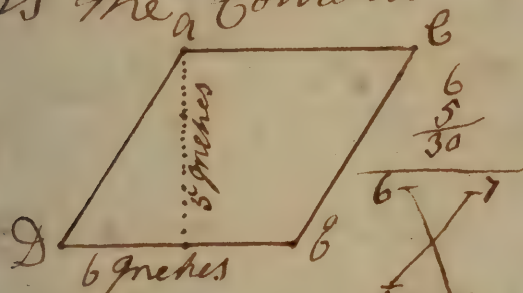
6
5
30
6   7

5   6

30 6
3   6
3 = 5/₄
37 5/₁₀

if the bace fide had ben
6½ Inches and Parpendiculer
Vedth 5 ⁶/₁₀ Inches it Would a ben
eafieft Done by a Crofs —

To find the Contents or area
of a khomboides or Long fquare
moued out of its place as the
figar anneked is a khomboides it is
Proformed as the aboue Queftion

Example Supofe the bace fine D C be 10 Inches and
the Parpendiculer Bredth 5 Inches What is the Contents
anfwer 50 Inches or 4 feat 2 Inch

10
5
50
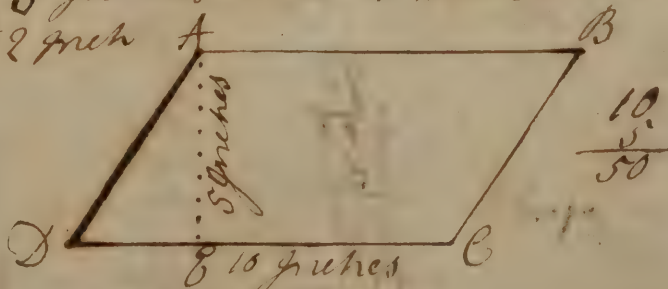
John Howland
His Book VII.

Rule of Measureing Circles Superfice and globical

a Circle is a Regular figor Whose Area is Bounded or Limited by one Curve Line Called its Circumference a Line Drawn through its Center and terminated Upon Each Side by the Curve Line is Called its Diamneter half the Diameter is Called the Radius being the Distence between the Compass When it is Drawn the Diameter of every Circle is to its Circumference as 7 is to 22 if I then the Diameter or Circumference be given We Can find the other by folloing Rule if the Diameter be given multiply it by 22 and Devide the Product by 7 the Quotient Will be the Circumference but if the Circumference be given multiply by 7 and Devide by 22 the Quotient Will be the Diamter

Example Supos the Diamter of a Circle 16 Inches What is the Circumference answer 50 2/7 of an Inch

$\frac{16}{2}$
$\overline{32}$

To find the ~~Circumfrence~~ Diameter multiply by 7 and Devide by 22) Circumference 50 2/7

$7)\overline{35\,4}/50:\frac{2}{7}$

$22)\overline{35\,2}:0/16$ Inches
$\underline{132}$
$\overline{132}$

The area or Contents of any Circle may be found by the following Rule multiply half the Circumference by half the Diameter the Product is the area or Contents Required —

Example Supos the Diameter be 16 Inches Consequently the Circumference is 50 Inches and 2/7 What is the area or Contents but the area of a Circle may be found some What Nearer by the following Rule square the Diameter that is multiply it into it self and multinly that Product by 7854 and Cut of the four Rite hand figuars the figars Lift to the Left hand is the Contents Required Example What is the area of a Circle Whose Diameter is 16 Inches

~~half Diameter~~
$25 = \frac{1}{4}$ half Circu
$8 = \frac{1}{7}$ half the Diam
$\overline{201 = \frac{1}{7}}$

So find the Contents of a globe
The Rule is find is area of its grateft Cur multinly it by 4 and that Product by one Sixth Part of its Diameter the rsutt Will be the Solid Contents Required Example What is Solid Contents of a globe Whose Diamter one Circle is as a Cone found answer 2145 3/7 Inches or

$\frac{16}{96}$
$\frac{256}{7854}$
$\frac{1024}{1580}$
$\frac{2048}{1792}$
$\overline{201\,0624}$

Supose a Farm Whose Rent is Worth Nine hundred
Dollers Redy money for Seven year I would Know
Howmuch that is yearley Rent to be Paid at
every years end. ————————— —

900
  6   first year }
————————
  54|90   Interest — } 270 = 16 = 4   8th year 286 – 4
£ 270 – Sum Paid)286 = 4 | 40   40 = 17 = 8 = 2 = 2/7   245 = 6 = 3 = 1 – 5/7
  6   6   14 = 14 = 1 = 2 = 6/7 ·72/100
 16|20   20   245 = 6 = 3 = 1 5/16   6|260 = 0 = 7 = 3 5/7 72/100 | 43
    20   7|124|17   20
   4|00   54   14|71 = 17 = 8 = 2 2/7   2
                          5   20   20
266 = 0 = 7 = 3 = 5/7 ·72/100   12   14|37   6|40|6
43 = 6 = 9 = 1 = 2/7 ·12/100   7|60|8   12   4
                                  4   4|52   12
217 = 13 10 = 2 = 3/7 ·60/100   9|10   6|55|9
                          7|16|2 : 2/7   7   4
300 : 8 = 3 = 3 = 0/7 ·60/100   ·72/100   6|7|1
  20   1
  3   216 = 13 = 10 = 2 = 3/7 ·60/100   6|12|2
  12   13 = 0 = 0 = 1 = 4/7 ·13/100 ·600/1000   100
  39   6|72|12
  4   5|229 = 13 = 11 = 0 = 0/7 73/100 600/1000 | 45   12
  59   29
  7   4   229 = 13 = 11 = 0 = 0/7 73/100 600/1000
 13/100   3th 45 = 18 = 9 = 1 = 4/7 34/100 720/1000   183 = 15 = 1 = 2 = 3/7 38/100 886/1000
 1 60/1000 5|93|18   ———————————————————————   11 = 0 = 6 = 0 2/7 72/100 332/1000 ·8000/10000
   600/100   43   183 = 15 = 1 = 2 = 2/7 38/100 880/1000   4|194 = 15 = 7 = 2 · 6/7 11/100 212/1000 8000/10000
              3   6   34 48
           12   11|02 = 10 = 9 = 2 6/7 33/100 280/1000   2
        5|47|9   20   20
           4   15|0   4|55|13
        5|8|1   12   15
           3   6|0|4   3
        5|0|4   38   12
         100   2|0|100   4|43|10
       173|34   72|3/1000   3
        73   33|4/10000 8000/100   12
         3   4|14|3
       3/1000   2
     5|600|720   4|20|5
        100   700
                                                               4|11|2
  94 = 15 = 7 = 2 = 6/7 11/100 212/1000 8000/10000   3/1000
6th 48 = 13 = 10 = 3 = 5/7 ·2/100 803/1000 2000   1|3217|803
                                                               12
146 = 1 = 8 = 3 – 1/7 ·8/100 409/1000 6000/10000   10000
                                                          4|8000|2600
8|76 = 10 = 4 = 2 6/7 50/100 457/1000 8000/10000   146 = 1 = 8 = 3 1/7 ·8/100 409/1000 ·6000/10000
   20   8 = 15 = 3 = 2 2/7 12/100 50/1000 10000/10000 5760
 15|3/100   3|154 : 17 : 0 = 1 5/7 ·20/100 914/1000 1760/10000 | 51
  12   4
 96|4   40
 2|58   5|37|12   3|2914|771
   7   12   4
 4|3/100   5|12|4   10000
   100   3|11760|3920
 1 58/1000   3|1|4   12
 58|5/10000   1   6/60
 57/100   100|3|6|6   Turn over — 7

$154 = 17 = 0 = 1 \frac{5}{7} \frac{20}{100} \frac{914}{1000} \frac{1760}{10000}$

5th $51 = 12 = 4 - 0 \frac{4}{7} \frac{\cdot 6}{100} \frac{971}{1000} \frac{3920}{10000}$

$103 = 4 = 8 : 1 \frac{1}{7} \frac{13}{100} \frac{942}{1000} \frac{7840}{10000} \quad 6$

6| $19 = 8 = 1 = 2 \frac{6}{7} \frac{\cdot 83}{100} \frac{\cdot 656}{1000} \frac{\cdot 7040}{10000}$
   20
3|8̄8̄
   12
10|5̄7̄
   4
2|3̄0̄
   7
3|1̄6̄ 200
16|8̄3̄ 1000
836|5̄6̄ 10000
  567|0̄4̄0̄ 100000
    4000|0̄0̄

6th $109 = 8 = 6 : 3 - \frac{3}{7} \frac{\cdot 30}{100} \frac{\cdot 779}{1000} \frac{\cdot 3510}{10000} \frac{\cdot 40000}{100000}$
     $54 = 14 = 3 : 1 - \frac{5}{7} \frac{\cdot 15}{100} \frac{\cdot 389}{1000} \frac{6755}{10000} \frac{20000}{100000}$

$54 : 14 : 3 = 1 \frac{5}{7} \frac{\cdot 15}{100} \frac{389}{1000} \frac{\cdot 6755}{10000} \frac{\cdot 20000}{100000}$
    6

3| $28 = 5 = 8 : 2 \frac{2}{7} \frac{\cdot 92}{100} \frac{338}{1000} \frac{\cdot 0531}{10000} \frac{\cdot 26000}{100000}$
   20
5|6̄5̄
   12
3|8̄8̄
   4
3|5̄4̄
   7
3|8̄0̄ 100
8|9̄2̄ 1000
  92|3̄3̄8̄ 10000
   3805|3̄ 100000
     31200|0̄0̄

$103 = 4 = 8 = 1 \frac{1}{7} \frac{\cdot 13}{100} \frac{\cdot 942}{1000} \frac{\cdot 7840}{10000}$
$6 = 3 = 10 = 2 \frac{2}{7} \frac{\cdot 16}{100} \frac{\cdot 836}{1000} \frac{\cdot 5670}{10000} \frac{\cdot 46000}{100000}$

2| $109 = 8 = 6 : 3 \frac{3}{7} \frac{\cdot 30}{100} \frac{779}{1000} \frac{\cdot 3510}{10000} \frac{40000}{100000}$
   09 (54
   40
2|7̄8̄|14
   12
2|6̄|3
   7
2|3̄|1
   7
2|1̄0̄|5
   100
4|\cdot 30|15
     1000
2|7̄7̄7̄|389
   7
   79
   10000
2|1̄3̄5̄1̄0̄|6755
   15
   11
   10
   100000
2|4̄0̄0̄0̄0̄|20000
   4

$54 = 14 = 3 = 1 \frac{5}{7} \frac{\cdot 15}{100} \frac{\cdot 389}{1000} \frac{\cdot 6755}{10000} \frac{20000}{100000}$
$3 = 5 = 7 = 3 \frac{3}{7} \frac{\cdot 80}{100} \frac{\cdot 923}{1000} \frac{3805}{10000} \frac{\cdot 31200}{100000}$

7th $57 = 19 = 11 = 1 \frac{1}{1} \frac{\cdot 96}{100} \frac{\cdot 313}{1000} \frac{\cdot 560}{10000} \frac{\cdot 51200}{100000}$

the first years Rent is £40=17=8=2=2/7

2th Ditto — — — 43=6=9=1=2/7 12/100

3th Ditto ——— 45=18=9=1=4/7 34/100 720/1000

4th Ditto — — 48=13=10=3=5/7 2/100 803/1000 2000/10000

5th Ditto ——— 51=12=4=0=4/7 6/100 921/1000 3920/10000

6th Ditto ——— 54=14=3=1=2/7 15/100 389/1000 6755/10000 20000/100000

7th Ditto ——— 57=19=11=1=1/7 96/100 813/1000 560/10000 51200/100000

£343=5=9=0 3/7 68/100 197/1000 3235/10000 71200/100000

The Principle Paid Down — } £270= —

first years intrest — — 16—4—

2th Ditto — — — 14=14—4=2 0/7 72/100

3th Ditto — — — 13=0—0=1 4/7 13/100 600/1000

4th Ditto — — — 11=0=6=0 2/7 72/100 332/1600 8000/10000

5th Ditto — — — 8=15=3—2—4/7 12/100 504/1000 5760/10000

6th Ditto — — — 6—3=10—2 2/7 16/100 836/1000 5670/10000 40000/100000

7th Ditto — — — 3=5=7=3 3/7 80/100 923/1000 3805/10000 31200/100000

£343=3=9=0 3/7 68/100 197/1000 3235/10000 71200/100000

According to the above Work

The Farm is Worth £49=0=6 4/5/7 58/100 599/1000 6176/10000 53028/100000

and a fracktion of 4 Left: Lawfull money pr year

The Rule of Vulgar Fractions

Fractions are either Simple or Compound

a Simple fraction is When the fraction is Immediatly
the fraction of an Unit a Unit is the Whole
Sum in a Lower Denomination that makes one Whole
Sum in a higher Denomination as four farthings
makes one Peney or 12 one s or 20 one Pound or
112 one Hundred Weight ——————

A Compound fraction is a fraction of a fraction.
as ⅓ of ½ of 1/20 of Pound Which is 9/60 Part of a Pou[nd]
or a Sum Devided into a Number of Parts and
Each of these Parts are Subdevided a gain into Parts these
Last Parts are Compound fractions being the
fraction of the fraction of a Unit &c ——————

Reduction of Vulgar Fractions —

When Fractions have Different Denominations and
Are to be Reduced to a Comon Denominator Multiply
the Numerators of Each fraction Singly into to all
the Denominators of Each fraction given Except
its one and the Product is a New Numerator and
Then multiply all the Denominator one in another
the Product is a Comon or New Denominator

Example Reduce $\frac{2}{3}$ $\frac{3}{4}$ and $\frac{5}{7}$ to a Common Denominator

$\frac{2}{4}$ $\frac{3}{3}$ $\frac{5}{4}$ $\frac{3}{4}$ | $\frac{56}{84}$ $\frac{63}{84}$ $\frac{60}{84}$

$\frac{2}{8}$ $\frac{3}{9}$ $\frac{5}{20}$ $\frac{3}{5}$
$\frac{7}{56}$ $\frac{7}{63}$ $\frac{3}{60}$ $\frac{7}{84}$

Example Reduce $\frac{56}{84}$ to it Loe[s]s $\frac{56}{84}$ $\frac{28}{42}$ $\frac{14}{21}$ $\frac{2}{3}$

The Reason of the Last Rule —
two Numbers however Different if they are Divided
by one and the Same Number the Quotient Will have
Like Proportion one to another as the Numbers
given to be Devided have to Each other as 100/1000 Equal

The Rule of Vulgar Fractions

So to bee[c]k if 100 the Numerator be Devided by is the
Quotient is 1 and 1000 the Denominator Devid by 100 the
Quotient is 10 Which $\frac{1}{10}$ is Equil to $\frac{100}{1000}$ because as
100 is to 1000 So is 1 to 10. for $100 \times 10 = 1000 \times 1$ ————

To Reduce a Compound ∴ to a Simple one Equival[e]
to the Compound   Multiply all the Numerators
one in another for the Numerator of the answered
and the Denominators one in another for that of the
Answer —

Example Reduce $\frac{1}{4}$ of $\frac{1}{12}$ of $\frac{1}{20}$ in a Simple
fraction

So the Simple fraction Sought
for is $\frac{1}{960}$ Part of an Unit or
$\frac{\frac{1}{4} \ \frac{1}{12} \ \frac{1}{20}}{\frac{240}{960} \ \frac{1}{960}}$
Equil to one farthing ————

To find the Vallue of any fraction Whether
the Same Be of Coine measure Weight &c
Multiply the Numerators of Each fraction
By Such a Number of Units of the Next inferior
Denomination as is Equil to a Unit of the Denom[i]
fraction is Part of and Devide the Product by the
Denominator So the Quotient Will answer your
Question but if any thin Remain Reduce
that to the Next Lower Denomination and
Devid as before ———————

Example What the Vallue of $\frac{134}{146}$ of a hundred
Weight See the Work. —

134 Hundred.
  4 Quarters in hundred

146) 536 (3
    438
    —
    98 Quarters Remains
    28   1284
    784   1768
    196   116

146) 2744 (18 Pounds

116
16 ounces in pound
—
696
116
146) 1856 (12
    146
    —
    396
    292
    104 ounces Remains

10 4 Drams in
16
—
624
104
146) 1664 (11
    146
    —
    264 answer
    146 0:3:18:12:11
    118

The Rule of Vulgar Fractions

To Reduce fractions of a Lower Denomination to a higher — Consider what Denomination your fraction is of and howmany of that makes one a Unit of the Next &c to the Denomination you Would have your fraction Reduced to —

Example Reduce $\frac{1}{5}$ of an ounce of avoirdupois into the fraction of an hundred weight —

16 ounces being one Pound $\frac{1}{5}$ of an ounce is $\frac{1}{5}$ of a $\frac{1}{16}$ of a Pound then I Consider that 28 lb is a Quarter of an hundred and 4 quarters is one Hundred therefore $\frac{1}{5}$ of an ounce is $\frac{1}{5}$ of $\frac{1}{16}$ of $\frac{1}{28}$ $\frac{1}{4}$ of a hundred See the Work —

I multiply the Denominators one into another and the Product is 8960 Which is a New Denominator and multiply the Numerators one into another but because the Numerators are ones the Product is one Which in its Proper Term is $\frac{1}{8960}$ Part of an Cwt

$$\begin{array}{r} \frac{1}{5} \quad \frac{28}{2} \\ \frac{1}{4} \quad \frac{14}{2} \\ \frac{1}{16} \quad \frac{7}{6} \\ \frac{1}{4} \quad \overline{672} \\ \underline{112} \\ \overline{1792} \\ \frac{5}{8960} \end{array}$$

To Reduce a fraction of a higher to a fraction of a Lower Denomination Reduce the Numerator of the fraction into that Denomination you would have your fraction of and Place it over your denomination given for a New fraction. — — —

Example Reduce $\frac{1}{8960}$ of a hundred Cwt into a fraction of an ounce

$$\frac{1792}{8960} \quad \frac{896}{4480} \quad \frac{448}{2240} \quad \frac{224}{1120}$$

$$\frac{112}{560} \quad \frac{56}{280} \quad \frac{8}{40} \quad \frac{1}{5}$$

or Divide the Denominator by the Numerator and the Product is 5 Which shews that there is 1 in the Numerator to 5 in the Denominator

$1792)8960(5$ of an ounce
$\overline{8960}$

$\begin{array}{r} 112 \text{ Pound} \\ 16 \text{ ounces in a Pound} \\ \hline 672 \\ 112 \\ \hline 1792 \end{array}$

$\frac{1792}{8960}$ Which fraction in its Least Term is $\frac{1}{5}$ of an ounce and Proves the Work as bone —

The Rule of Vulgar Fractions &c
Addition

When a simple fraction is to be added to a simple
if the fractions are Not in a common Denominator
Reduce them to one then add the Numerators together
and Divide the Sum by the Common Denominator and
the quotient is the Sum Required and if any thing
Remains Place it over the Devisor ———

Example To $\frac{2}{3}$ add $\frac{5}{6}$ $\frac{2}{3}$ $\frac{5}{6}$ $\frac{12}{15}$

$\frac{12}{18}$ $\frac{15}{18}$ $27/1 = \frac{9}{18}$ or $1\frac{1}{2}$ for
$\frac{}{9}$ answer ———

Example To $\frac{7}{12}$ add $\frac{3}{12}$ $\frac{3}{10}$ $\frac{10}{12}$ So that $\frac{7}{12}$ and $\frac{3}{12}$ is $\frac{10}{12}$ for
answer

When a mixed Number is to be added to a
mixd. Work with the fractional Parts
as before and afterwards add the Sum of the
fractions to the Sum of the Whole Numbers
and you have your Desire ———

Example To $1\frac{1}{2}$ add $7\frac{3}{5}$ $\frac{1}{2}$ $\frac{3}{5}$ $\frac{5}{6}$
$\frac{5}{10}$ $\frac{6}{10}$ $\frac{11}{10}$ substract
$1 - \frac{1}{10}$ $\frac{5}{10}$ $\frac{6}{10}$ 1 Riains is $\frac{1}{10}$
$\frac{1}{}$
$\frac{7\frac{1}{}}{76} = \frac{}{10}$ for answer

Example To $\frac{15}{12}$ add $\frac{3}{8}$ of $\frac{2}{3}$ $\frac{3}{8}$ $\frac{2}{3}$ = $\frac{6}{24}$

$\frac{15}{12}$ $\frac{6}{24}$ $\frac{252}{360}$
$\frac{360}{1008}$ $\frac{252}{1008}$ $\frac{612}{}$

$\frac{612}{1008}$ answer ——
Nearest to
$\frac{11}{18}$

The Rule of Vulgar Fractions &c

Substraction

When a Simple Fraction is to be Deducted
from a Simple one Reduce the fractions to a
Common Denomination then Substract the Lefer
Numerators from from the grater Place the
Remainder over the Denominator and you have
the Difference Sought for

Example from $\frac{3}{4}$ take $\frac{5}{12}$

$$\frac{3}{4} \quad \frac{5}{12}$$
$$\frac{36}{48} \quad \frac{20}{48}$$

$$\frac{36}{20} \text{ Substract}$$
$$\frac{16}{48} \text{ or } \frac{1}{3} \text{ for answer}$$

Example from $\frac{13}{14}$ take $\frac{2}{3}$ of $\frac{8}{9}$

$\frac{2}{3}$ of $\frac{8}{9}$ is $\frac{16}{27}$

$$\frac{27}{14}$$
$$\frac{16}{9}$$
$$\frac{27}{378}$$

$$\frac{13}{14} \quad \frac{16}{27}$$

$$\frac{13}{27} \quad \frac{16}{14}$$

for answer = $\frac{127}{378}$

$$\frac{91}{26}$$
$$\frac{351}{224}$$
$$\frac{224}{127} \text{ Diff}$$

$$\frac{64}{16}$$
$$\frac{224}{224}$$

When a Simple fraction is to be Deducted from
a Whole Number Deduct the Numerator from
the Denominator and Place the Remainder over
the Denominator then Deduct 1 from the Whole
Number and Place the Remains of the Substraction
before it and you have your Desire.

Example from 12 Jake $\frac{5}{8}$

$$\frac{5}{8}$$

$11 = \frac{3}{8}$ answer

$$\frac{3}{8}$$

The Rule of Fractions &c

Mutiplication

When you are to multiply a simple fraction by
a simple one multiply all the Numerator
one in another for the Numerartor of the Divid
and Likewise the Denomenators for the Denom^{nator}
of the Product —

Example multiply $\frac{1}{2}$ by $\frac{2}{3}$ $\frac{2}{2}$ $\frac{3}{}$ $\frac{}{6}$ answers $\frac{2}{6}$ or $\frac{1}{3}$

Example multiply $\frac{3}{4}$ by $\frac{2}{3}$ — $\frac{2}{3}$ $\frac{3}{6}$ $\frac{}{12}$ Produces
$\frac{2}{3}$ of $\frac{3}{4}$ or $\frac{6}{12}$ or $\frac{1}{2}$ answer,

the Effect of multiplying of fractions is Difrent
from that of Whole Numbers for the Product
is always Less than the multiplicand it being
the multieying of the Parts into which a Unit is
Devided which must Needs make the Parts Deduced
Less than those that is given

The Rule of Fractions &c

Division

When you would Devide a simple fraction
By a simple one Having Placed the Devidend
and Devisor as in Whole Numbers ——
Multiply the Numerator of the Divisor
into the Denominator of the Dividend for the
Denominator of the Cotient and the ——
Denominator of the Devisor into the Numerator
of the Devidend for the Numerator of the
Cotient —— —— —— ——

Example Devide $\frac{11}{12}$ by $\frac{1}{2}$ $\frac{1}{2})\frac{11}{12}$ $\frac{22}{12}$ $1\frac{10}{12}$ or $\frac{5}{6}$

Example Devide $\frac{3}{4}$ by $\frac{1}{4}$ $\frac{1}{4}$ $\frac{3}{4}$ $\frac{12}{4}$ 3 answer

Reduction of Decimal Fraction

A Decimal fraction is only Different from
a Vulgar in this that the Denominator of a
Decimal is always given it begins at 10 and
increases a tenfold to a 100 1000 & 10000 &c to 1000000000.
The maner to Reduce A Vulgr Fraction into: a Decimal
is by this propotion

as the Denominator of the Vulgar fraction given
is in Proportion to its Numerator So is the Denominator
of the Decimal to its Numerator as 10 a 100 or 1000 &c

Example What is $\frac{3}{8}$ of a Vulgar fraction in a Decimal

$$8 = 3 = 1000$$
$$8 \overline{)3000} 375 \text{ answer } \frac{375}{1000}$$

Example How is 3 farthings wrought in the
Decimals of of a fraction of a Pound I Consider that
there is 960 farthings in a Pound ————

$$960 = 3 = 100000$$
$$960 \overline{)300000} .003\frac{1}{2} \qquad \frac{000312\frac{1}{2}}{100000}$$

Example How is 13 in
the Decimal of a Pound?
in a Vulgar fraction 13 is $\frac{13}{20}$ and
in a Decimal $\frac{65}{100}$

$$20 = 13 = 100$$
$$20 \overline{)1300} 65$$

Example What is 14=6
in the Decimal of a Pound? in 14:6 there is 174 pence
and in a Pound there is 240 pence

answer $\frac{725}{1000}$

$$240 = 174 = 1000$$
$$240 \overline{)174000} 725$$

Reduction of Decimal Fractions &c

When it is Required to find the Value of any
Decimal multiply the Deeimal given by Such a
Number of Units of the Next inferiour Denomination
as makes a Unit of that your Deeimal is found
of and Direck of So many figures to the kile hand
as there is Noughts in your Decimal and those
figurs tt the Left hand are integars or whole
Numbers of the Laft multiplier and those to the
Rite hand are fractions to be multiplied by the
Nextt Loeft Denomination. ——— ———

Example What is the Value of $\frac{.1071}{10000}$ of a hundred
Weight ——————————————————

```
1071¼  Quorters in a hundred
.4284  Dounts in a quorter       Answer 11 = 15 = 12 - - $\frac{.3712}{10000}$
   28
────
 3427 2
 8 5 6 8
────
11:9952  16 ounces in a pound
────
  59712
  9952
────
15:9 23⅛  grams in an ounce
────
  31398
  9292
────
12:3712
```

Example What is the Value
of $\frac{.747}{1000}$ of a Pound Troy
Weight

```
747   ounces in a pound
────
8.964   20 penay wts in an oz
────
19:280   24 grains in pwt.
────
  1120     Answer 8 - 19 = 6 - $\frac{.720}{1000}$
  560
────
 6.720
```

Example What is the
Value of $\frac{.9184}{10000}$ Pounds Lawfull   9184 Parts of Pound
Answer 18 = 4 = 1 $\frac{.6640}{10000}$ 20 Shillings in Pound
                                          ────
                                          183.680 Parts of a shilling
                                              12 pence in a shilling
                                          ────
                                          4.4160 4
                                          ────
                                          1.6640
```

# The Rule of Cross Multiplication
Supose I wanted to Know

to | Eight Square a Stik of Timber Draw two
Lines from apeat at 3 Inches at 15 Inches
to 8 Square a Stik take the branches and that signet from the
peak take the with Cross and that depeth from the middle

# Cross Multiplication

Which is multiplying feet & Inches together is
a Very Ready Way Measure bords timber or to
Survey a Afsell _____

    Example Supose a bord 25 feat 8 Inches Long
and one foot 9 Inches broad how many feat
is the Contents

To Performe this Work The Rule is
Multiply the feat in Length by the
feat in Width Which is once 25 is 25
Which I Put Down then I Say Nine
times five is forty five Which I Set
out one Side and Nine times 2 is 18 and
four is 22 Which is 225 Devided by 12 the
Inches in a foot Makes 18 feat 9 Inches Which I Set
Under 25 as Under the Crofs appears and the once
8 is 8 Which is Eight Inches be Caufe it is Lefs
than 12 Which I Set Down Under the 9 Inches
then I Say 9 times 8 is 72 Which is twelfths of
Inches Devided by 12 makes 6 Inches Which being
aded In makes 44 feat 11 Inches the Contents of the
Bord

25     8    12/225/18  
      X      105  
           9  
1      9  
25  
18 = 9  
feat   6 Inches  
44 = 11 anfwer

_____

Supose a Square Stick of Timber 48 feat 6 Inches
Long 3 feat 6 Inches Square How many feat Solid
this Work is Performed by 2 Crofes
be Caufe it is Soled meafure the
Length is      multiplyed by 2 Sides

This is a Very Brief Way of Performing
of Solid meafure Where the bignefs
is above twelve Inches for it gives the
Contents Even to a twelfth Part of
an Inch with a Very few figures

48 - 6   12/288/24  
    X      28  
3     6  
144  
24 - 6  
1 - 6    3  
169 = 9   12/1014/84  
    X      54  
3     6     6  
507  
84 - 6  
2 - 3   6  
    4   12

# Cross Multiplication — John Howland 1771

Supose a Stick of Timber is 30 – 8 Long four feet
4 Inches one Way and 3 – 3 the other how many feat Solid

To Proform this is a Very Nice point

for you must in Working by the 2th
Cross multiply the fractions or 12th two
Ways as you will See By the Work

the 2th Cross is 132 = 10 ÷ – 8/12 of one Inch
is multiplyed by 3 – 3 Inches Which to
Proform you must Say 3 times 8 is 6
and 3 times 3 is 9 and three times 1 is 3
and then multiply the 132 by the 3 Inch
and Devid by 12 Which is 33 feat Set Under
396 then Say 3 times 10 is 30 Which is
2 feat 6 Inch Set it Under the 33 : 6

then for the 8/12 you must multiply
by the 3 feat Saying 3 times 8 is 24 which Devided
by 12 is 2 Inches Which Set Under the 6 Inches and
then Say 3 times 10 is 30 the Inches multiplyed by Inch
Which is 2 Inches and 6/12 as in the Last Cross then
Say 3 times 8/12 is 24 Which is 2/12 as in the Work
then add them together Which makes 431 = 10 = 8/12
Which is four hundred thirty one feat ten Inches and
Eight twelfths the Solid Contents of the above
Stick of Timber

---

Supose a Stick of Timber is 10 feat 6 Inch Long and
2 feat 5 Inches Square J Demand how many feat
Soled is Contained in this Stick of Timber

answer feat In
61 = 3 10.864
12.1728

This Stick Contains
Sixty one feat three Inches and ten
twelueths and one half of a twelich of
an Inch or 864 Parts of a twelich of
an Inch which is a 1728 fraction of a fraction
an Inch See the answer above

# Cross Multiplication

J: Demand Howmany Tuns is Contained in a
Vessell Whose Dementions is 50 feat — 8 inches by the
Keel 19 feat — 7 inches by the Beem & 8 feat — 2 inches in
Hole

To Preform this by Cross
Multiplication you must
Work by the two Crosses
as in the foregoing Cases,
and Devide the Product by 95
the Cotient Will be the tuns Required
in tuns feat Inches & twetneth parts
of Inches See the answer

$$50 - 8$$
$$19 - 7$$

$$\frac{17.35}{11.2} \, 9/21$$

$$12/15.2/12$$
$$\frac{32}{8}$$

950
9 — 9
12 · 8
4 — 12

992 = 9 = 8/12

$$1/178 - 1/165$$
$$\frac{78}{14}$$
$$\frac{4}{4}$$

8 — 2

793.0
165 = 4
1 = 4/4
0 4/4
12/12

Answer 85 = 28 — 1 9/12 1/3 of 12th
of an Inch

95 | 8103 = 1 9/12 | 85
    60
    303
    47 3
    — 28

---

J Demand the Tuns Contained in a Double Deck'd
Vessell Whose Dementions are as folers    Length
of the Keel 55 feat — 7 inches    Bredth of Beem 23 feat — 8 inches

the Length of Keel bredth
and half bredth of
Beem being multiplied
together and the Product
Devided by 95 gives
163 tuns — 81 feat the tuns Required
By this Rule
the tuns Contained
in any Dementions
for a Vessell may
Easily be Known

$$1315 = 5 \frac{8}{12}$$

$$12/1315/9/1096$$
$$115$$

11 — 10
1315
14465
1095 = 10
1 — 7
7 — 4
4 — 2

55 — 7
70    23 · 8
16 5
110
1265
36 — 8
1 3 — 5
1315 = 5 8/12

440/36
80
8

13/161/13
4
5

95 | 15666 = 5 = | 163 : 81 anser
    5 5
    66 6
    570
    36 6
    28 5

To Dooform Solid meafure by Scale & Compass
The Rule is Thus if the Stick be Square it is
as 12 is to one of the Sides So is the Length
to a fourth Number and So is that fourth to the
Contents Required

I Demand How many feat Solid is Contained
in a Stick of Timber Whose Side is 9 inches and
Length is 35 feat   it is as 12 is to 9 So is 35
to 26¼ a fourth Number So is that fourth Number
to the Contents 19 feat 5/12 Nearift

---

if a Stick of Timber be bigger one Way than the other
the Dronotion is thus as 12 is to the bigeft Side to is
So is the Lefer Side to fourth Number and then as
12 is to That fourth Number So is the Length to the
Contents Required

I Demand How many feat Solid is Contained
in a Stick of Timber Whose Sides is 20 inches one
Way & 13 inches the other and Length 15 feat 3 inches
for it is as 12 is to 20 So is 13 to 21 and ¾ a fourth Number
then Say as 12 is to that 6 21 and ¾ the fourth Number
So is 15 feat 3 ine to the Contents Required 27¾ feat

Which is Dooformed by Crofs multintication more
Exact as apeears by the Crofs

But if the Length and Sides be
given in feat the Dronotion
is thus as 1 is to the given Side
So is the Length to fourth Number
and So is that fourth Number
to Contents Required

But if the Stick to be meafurd
be Biger one Way than the other
the Dronotion is thus as 1 is to
the gratest given Side So is the
Lefer given Side to a fourth Num
then Say as 1 is to that fourth
Number So is the Length to the Contents
Required in feat

15 - 3         1 20/10

1         8
15
10 = 3/2
2½ = 5/2

1         1
2 5/2
2 - 6 5/12

27 - 6 5/12  anfwer

Suppose a Wolf a Dog & Fox should Kill
a Sheep that Weighs 40$^{lb}$ falling into a Dispute
about Eating of the Sheep the fox says he Could
Eat it Up in one houre the Dog says he Could
Eat it in half an houre the Wolf Reply was he
Could Eat it in quorter of an hour

They all fell two and Eat at the above
mentioned Rate till they Had Eat the Sheep Up

I Demand How Long they all Were Eating the
Sheep and how much Each beast Eat of the
40 $^{lb}$

---

first I say if 7=60=1/8=4/7 Which is 8 minutes 4/7 of
of a minute the term of time they Was Eating the
Sheep Now to Know how much Each Eat I Suppose
the Wolf Eat 22=13=11 lb these Proportions I find
the Dog Eat -11-6=13 3/4 to be Right because they
the fox Eat -5=11=6 3/4 make the forty Weight
40=0=0 See the margin above

---

Suppose a mans Estate is Worth 500£ he being sick haueing
No Child but his Wife being Bigg with Child makes
his Will in this maner if my Wife should haue
a Son I giue to my son two thirds of my Estat
and my wife one third but if She should haue
a Dafter I giue to my Wife two thirds and my
Dafter one third this man Deceast his Wife ~~was~~
Brought forth two sons & a Dafter

I Demand a Diuision of this Estate
amongst these foure Persons agreable to
the Will of the Testater

---

agreable to this Will Each Son Was to haue foure pounds
to the mothers two and the mother to the Dafter one
I State the question in this maner If 11=500=4
11|2000|

11/2000/181　　　J find £181=16=4=$\frac{4}{11}$ to be one sons sheare
$\frac{90}{20}$　　　Consiquently 181-16.4 $\frac{4}{11}$ is the Sconts sons sheare
$\frac{20}{18^0/16}$　and the one halfe 90÷18=2 $\frac{2}{11}$ to be the wifes sheare
$\frac{90}{11}$　　and one halfe 45=9.1 $\frac{1}{11}$ to be the dafters sheare
$\frac{11}{12}$　　　　　　　£500=0=0=0
$\frac{48/4}{4}$

---

Supose a Hogshead that Contains 140 gal: Had a
snout of Water Runing into it that Would fill
it in one hours aLowing the Hds to be Site and
then Say one snout to Let out that Would emty
it in two hours alowing the other to be stopd. and
and the Hds full of Water and one more that Would
Let it out in 4 hours and one that Would Let it
out in 6 houses Now Set all theafe snouts Runing
one in and 3 out J Demand How long this Hds
Will be filling —  —  —

The Rediest Way to Proform this is to Say the snout
that Would Let it out in 2 hours Will Let out
one half of it in one hours and that snout that
Would Let it out in 4 hours Will Let out one
fourth Part in one hours and the snout that
Will Let it out in 6 hours Will Let out one
sixth Part of it in one hours Which Work
J Proform in this maner follering —

then To bring
one half one fourth　　$-\Big|\frac{1}{2}-\Big|\frac{1}{4}-\Big|\frac{1}{6}-$　　$-\Big|\frac{6}{12}-\Big|\frac{3}{12}-\Big|\frac{2}{12}-\frac{11}{12}$
and one fifth into
one Denomination J Say $\frac{1}{2}$ is
$\frac{6}{12}$ and $\frac{1}{4}$ is $\frac{3}{12}$ and $\frac{1}{6}$ is $\frac{2}{12}$ ading theafe togetber,
they make $\frac{11}{12}$ Which it appears that the
Hds fills one twetieth Part faster than it emties
Consiquently the Hds Will fill in 12 hours

# Rule of gageing &c Wine measure

To Perform this Rule By gunters scale
the Proportions are as follers

Example Supose a Cask Whose Length
30 Inches Bung Diammeter 27 Inches of head Diam
20 Inches how many gal. Dose this Cask Contain

Bung Diam$^t$ 27 —    then I Say as I is to 7 the
Head Diam$^d$ – 20    Diff$^s$ betwixt Head and bung
the Diff - - - 07

Head Diam    Then I Say as 1 is to 7 So is 7 the Diff$^s$ of bung
fourth 20    and Head Diam$^s$ to 4$\frac{9}{10}$ fourth Number Which being
Numb) $\frac{4\frac{9}{10}}{24\frac{9}{10}}$    Aded to the Head Diameter brings the Cask to a
Cylender then Say as 17$\frac{15}{100}$ the gage Point for
Wine is to the Diameter 24$\frac{9}{10}$ So is the Length 30
Twie Said on in creasing to Contents in gal. 63½
63½ Required

---

# Timber Measure

Example Supose a Stick of Timber 9 Inches
Square how much in Length Will make a foot Solid
With Saale and Compass the Rule is as 9 $\frac{1}{2}$
the given side is to 12 So is 12 to fourth Number
and So is that fourth Number to 21 Inch the Length
Required to make a foot    or by Arethmetick
thiss multiply the two given sides to gether
and Devide 1728 the Inches in a fott Solid by
the Product see the 1 feb

To measure a box or Case or Bale
Having it Length Bredth & Depth given

if it is Required to find the Contents in tuns
the Rule is With Scale of Compases
as 66 is to the bredth So is the Depth
to fourth Number and as 1 is to that fourt Number
So is the Length to tuney Required ———

Supose a box bale or Case Whose Length is
10 feet Bredth 6 feat & Depth 4 feat how many
tuns answer 3 $\frac{63}{100}$ tuns for it is as 66 is to 6 So is 4
to fourth Number Which is Neareſt 3 $\frac{6}{10}$ then
as 1 is to that fourth Number So is 10 to 3 and a little
better than $\frac{6}{10}$ Which is 3 tuns $\frac{63}{100}$

to Do form this by Arithmetick the Rule is
Multiply the Width by the Depth and Length and
Divide by 66

$$\begin{array}{ccc} \text{Length} & \text{Bredth} & \text{Depth} \\ 10 & 6 & 4 \\ & 4 & \\ \hline & 24 & \end{array}$$

$$66 \overline{)\begin{array}{c} 240 \\ 198 \\ \hline \cdot 42 \end{array}} \quad 3 : \frac{42}{66} \quad \text{or} \quad 3 - \frac{2}{3} \text{ Nearest} \text{ (tuns)}$$

if it is Required to find the Contents of box bale
or Case in feats the Rule is thus With Scale & Comp
as 1 is to the Bredth in feat So is the Depth in feat
to fourth Number and as 1 is to that fourth Number
So is the Length in feat to the Contents Required in f
But if the Length be given in feat and the Bredth
and Depth in inches the Rule is thus as 12 is to
the bredth So is the Depth to fourth Number and then
as 12 is to that fourth Number So is the Length
in feat to the Contents in feat Required

Supose it is Required to find the Contents of a box
bale or Case Whose Length is 5 feat Bredth is 3 fea
and Depth 2 feat With Scale & Compases thus
as 1, is to 3 So is 2 to fourth Number and as 1 is t
that fourth Number So is 5 feat the Length to
30 feat the Contents Required

Supose a box bale or Case Whose Length
is 4 feat Bredth is 11 Inches and Depth 8 Inches
the Rule is thus as 12 is to 11 Inch the Bredth
So is 8 Inch the Depth to fourth Number $7\frac{3}{10}$ and as
12 is to that fourth Number $7\frac{3}{10}$ So is 4 feat the Leng
to the Contents Required $2\frac{9}{10}$ feat

When the Length is given in feat and Inches
and Bredth & Depth in feat & Inches the Rediest
& Exactest Way to Perform this is by Cross multiplication
Supose a Box bale or Case Whose Length
is 5 feat 7 Inches Bredth 3 feat 5 Inches & Depth
is 2 feat 4 Inches How many feat is Contained

$$\begin{array}{c} 5 \quad 7 \\ \times \\ 3 \quad 5 \end{array}$$

I Would Know What Drinsible
With the Intrest of it at 6 pr.
Cent Will giue on hundred
Pound at a years Eand _____

$$\overline{15}$$
$$2-1.$$
$$1=9$$
$$2\cdot\frac{11}{12}$$

$$\overline{19=0\frac{11}{12}} \quad 12/7 6/$$
$$\times$$
$$2 \quad 4$$

Answers & qu
94=6=9=2=$\frac{4}{106}$ Drineible
5=13=2-1-102 Intrest
100:0=0:0=$\frac{0}{106}$      feat qu
     answered. 44=6$\frac{1}{12}$ $\frac{16}{24}$  $\overline{38}$
                                    6-4
                                    $\frac{19}{12}$

Supose a sistern that holds 120 gal: had a
spout of water let into it that
would fill it in one hour and then we
supose thers 3 spouts lets out a lowing
the sistern to be full one of theap spouts
will discharge it in two hours the 2th
will discharge it in 4 hours the 3th will
discharge it in 5 hours the sistern shall
be finty all theap spouts lot a runing one
in and 3 out I demand how long this sistern
will be a filling

$$\frac{1}{-} - \frac{1}{-} - \frac{1}{-} \qquad \frac{10}{-} - \frac{5}{-} - \frac{4}{-} \qquad \frac{19}{20}$$
$$\;2\;\;\;4\;\;\;5 \qquad 20\;\;\;20\;\;\;20$$

it appears by the work that theap 3 spouts finties $\frac{19}{20}$
parts of it in one hour so the spout that will
fill it in one hour will gain one twentieth
part every hour consequently the sistern will
fill in 20 hours by the above hull

or for instance I say the spout that
will let it out in 2 hours will let out
one half of it in one hour which is 60 gal
and that spout tha will let it out in ⎫
four hours will let out one fourth part ⎬ 30 gal
of it in one hour which is ⎭
and that spout that will let it out ⎫
in five hours will let out one fifth part ⎬ 24
of it in one hour which is 24 gal ⎭ 114 gal

it apears by the last work that theap 3
spouts lacks 6 gal every hour of emtying the sistern
as fast as the one fills it so that in
20 hours the sistern will be full for 6
times 20 is a 120 which a grees with truth
the a bove method of working